APPENDIX B

Results of the Biological Constraints Survey for the OC-44 Underground Booster Pump Station Project Site

Prepared by BonTerra Consulting, February 2010

Results of the Biological Survey for Options 2 and 3

Prepared by Dudek, February 2010

February 4, 2010

Mr. Alan Ashimine
Senior Associate, Environmental Services
RBF Consulting
14725 Alton Parkway
Irvine, California 92618

VIA EMAIL AND MAIL
aashimine@rbf.com

Subject: Results of the Biological Constraints Survey for the OC-44 Underground Booster Pump Station Project Site, Newport Beach, Orange County, California

Dear Mr. Ashimine:

This Letter Report presents the findings of a biological constraints survey conducted on the OC-44 Underground Booster Pump Station Project Site (hereafter referred to as the "project site") located in Newport Beach, Orange County, California (Exhibit 1). BonTerra Consulting Ecologist Lindsay Messett conducted a general plant and wildlife survey on November 10, 2009, in order to evaluate potential biological constraints to future development of the site as a desalination plant underground booster pump station. The purpose of this survey was to update an existing biological survey conducted by BonTerra Consulting in 2002. The findings of the 2002 survey are updated in this Letter Report based on the current site conditions.

PROJECT LOCATION AND DESCRIPTION

The project site is located on the U.S. Geological Survey (USGS) Laguna Beach 7.5-minute quadrangle map and is located within an Orange County Resource Preservation Easement, approximately ¼ mile north of the San Joaquin Reservoir. The project site is south of the San Joaquin Hills Transportation Corridor (State Route [SR] 73) and Bonita Canyon Road and can be accessed via Ford Road (Exhibits 2 and 3). Land uses surrounding the project site are primarily residential; however, there is a small amount of open space to the north and south of the project site along the drainage in the eastern portion of the project site which connects Bonita Reservoir to the north with San Joaquin Reservoir to the south.

The County of Orange, in conjunction with the State and federal resource agencies, local jurisdictions, utility companies, the Transportation Corridor Agencies and major private landowners, approved the Natural Communities Conservation Planning Program/Habitat Conservation Plan (NCCP/HCP) for the Central/Coastal Subregion on July 10, 1996, through the execution of the NCCP/HCP Implementation Agreement (IA). This plan is intended to ensure the long-term survival of the coastal California gnatcatcher (*Polioptila californica californica*) along with other special status coastal sage scrub-dependent plant and wildlife species in accordance with State-sanctioned NCCP program guidelines. The project site occurs within the Central/Coastal NCCP/HCP area; however, is outside any areas designated as "Reserve", "Special Linkage", "Existing Use", "Non-Reserve Open Space" or "Policy Plan Area".

The OC-44 underground booster pump station would include pumps; a surge tank to protect the distribution system from sudden pressure changes; telemetry equipment; appurtenances; and three diesel powered electrical generators for emergency back-up purposes. The diesel powered-powered generators would require an 8,700-gallon diesel fuel storage tank that is 8 feet in diameter and 26 feet deep. The booster pump station, including the surge tank, 3 generators and diesel fuel storage tank, would require a total footprint area of approximately 110 feet by 110 feet, and would be placed entirely underground to maintain the natural character of the surrounding resource preservation easement. Any displaced vegetation would be replaced upon completion of construction.

SURVEY METHODS

Ms. Messett conducted a general plant and wildlife survey across the entire project site on November 10, 2009. The survey was conducted by walking the project site and recording plant and wildlife data. The constraints survey was conducted to describe the vegetation and to evaluate the potential of habitats to support special status plant and wildlife species on the project site. Prior to the survey, the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California (CNPS 2009) and the California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDB) (CDFG 2009) were reviewed to identify special status plants, wildlife, and habitats known to occur in the vicinity of the project site. Database searches included the USGS Laguna Beach 7.5-minute quadrangle. Representative project site photographs are provided in Exhibit 4.

Plant species were identified in the field or collected for later identification. Plants were identified using taxonomic keys in Hickman (1993), Munz (1974), Abrams (1923, 1944, 1951), and Abrams and Ferris (1960). Taxonomy follows Hickman (1993) or current scientific journals for scientific and common names. Vegetation types were classified based on the County of Orange Habitat Classification System Natural Resources Geographic Information System (GIS) Project (Gray and Bramlet 1992). All plant species observed were recorded in field notes and are listed in Table A-1 of Appendix A.

All wildlife species detected during the course of the surveys were documented in field notes. During the surveys, each vegetation type was evaluated for its potential to support special status species that are known or expected to occur in the region. Active searches for reptiles and amphibians included lifting, overturning, and carefully replacing rocks and debris. Birds were identified by visual and auditory recognition. Surveys for mammals were conducted during the day and included searching for and identifying diagnostic signs, including scat, footprints, scratch-outs, dust bowls, burrows, and trails. Taxonomy and nomenclature for wildlife generally follows Stebbins (2003) for amphibians and reptiles, American Ornithologists Union (2008) for birds, and Baker et al. (2003) for mammals. All wildlife species observed were recorded in field notes and are listed in Table A-2 of Appendix A.

SURVEY RESULTS

Vegetation Types and Other Areas

Five vegetation types and other areas occur on the project site. Vegetation types and other areas present on the project site include mule fat/coyote brush scrub, willow scrub, ornamental, disturbed, and developed. Additionally, coastal sage scrub vegetation occurs adjacent to the project site's eastern boundary.

Mule fat/coyote brush scrub occurs in the northeastern corner of the project site. This vegetation type is dominated by mule fat (*Baccharis salicifolia*) and coyote brush (*Baccharis pilularis*).

Other species occurring in this area include cattails (*Typha* sp.), and lemonadeberry (*Rhus integrifolia*).

Willow scrub vegetation occurs along the drainage within the eastern and southern portions of the project site. This vegetation type is dominated by arroyo willows (*Salix lasiolepis*), with less abundant mule fat, and cattails.

Ornamental vegetation is found throughout the project site, primarily within the site's western portion. This vegetation type is most often associated with developed areas. Ornamental species observed include gum trees (*Eucalyptus* sp.), pine trees (*Pinus* sp.), Mexican fan palm (*Washingtonia robusta*), Peruvian pepper trees (*Schinus molle*), and oleander (*Nerium oleander*). The understory of the ornamental areas appears to be annual grassland vegetation dominated by non-native grasses (*Avena* and *Bromus* spp.); however, this area had been recently mowed at the time of the biological survey. The slopes in the western and northern portions of the project site are likely mowed regularly for fire suppression to protect the residences above.

Disturbed/developed areas occur throughout the center of the project site. These areas are typically unvegetated bare ground but may contain scattered native or non-native weedy species. On the project site, these areas include the existing unpaved access road that crosses the drainage as it enters the project site and a cleared area that surrounds a manhole access station. A series of Metropolitan Water District manhole access stations are also located on or immediately adjacent to the project site.

Wildlife Habitat

The project site provides moderate to high quality habitat for wildlife species. No amphibian species were observed on the project site during the survey; however, there is potential for species such as the western toad (*Bufo boreas*) and Pacific treefrog (*Pseudacris* [*Hyla*] *regilla*) within the drainage located in the eastern portion of project site. One reptile species, western fence lizard (*Sceloporus occidentalis*), was observed during the survey. Common reptile species such as side-blotched lizard (*Uta stansburiana*) and gopher snake (*Pituophis catenifer*) are expected to occur on the project site as well.

Bird species observed on the project site include red-tailed hawk (*Buteo jamaicensis*), rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), rufous hummingbird (*Selasphorus rufus*), black phoebe (*Sayornis nigricans*), western scrub jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), bushtit (*Psaltriparus minimus*), ruby-crowned kinglet (*Regulus calendula*), coastal California gnatcatcher, Northern mockingbird (*Mimus polyglottos*), yellow-rumped warbler (*Dendroica coronata*), common yellowthroat (*Geothlypis trichas*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Carpodacus mexicanus*), and lesser goldfinch (*Carduelis psaltria*).

Mammals or their sign that were observed on the project site include desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), and coyote (*Canis latrans*).

Special Status Vegetation Types

Special status vegetation types are considered to be "depleted" habitats by the CDFG (CDFG 2009) and other resource agencies; these vegetation types are typically protected by ordinances, codes, or regulations under which conformance typically requires a permit or other

discretionary action prior to impacting the habitat. Riparian vegetation is the only special status vegetation type that occurs on the project site.

Jurisdictional Areas

Drainages, which may include "Waters of the U.S.", are protected under Section 404 of the Clean Water Act (CWA) and are under the jurisdiction of the U.S. Army Corps of Engineers (USACE). "Waters of the U.S." include navigable coastal and inland waters, lakes, rivers, streams and their tributaries; interstate waters and their tributaries; wetlands adjacent to such waters; intermittent streams; and other waters that could affect interstate commerce. The Regional Water Quality Control Board (RWQCB) is the primary agency responsible for protecting water quality within California through the regulation of discharges to surface waters under the CWA and the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act). The RWQCB's jurisdiction extends to all "Waters of the State" and to all "Waters of the U.S.", including wetlands (isolated and non-isolated).

Section 401 of the CWA provides the RWQCB with the authority to regulate, through a Water Quality Certification, any proposed federally permitted activity that may affect water quality. Among such activities are discharges of dredged or fill material permitted by the USACE pursuant to Section 404 of the CWA. Section 401 requires the RWQCB to provide certification that there is reasonable assurance that an activity which may result in the discharge to "Waters of the U.S." will not violate water quality standards. A Water Quality Certification must be based on a finding that the proposed discharge will comply with water quality standards, which contain numeric and narrative objectives that can be found in each of the nine Regional Boards' Basin Plans.

A CWA Section 401 Water Quality Certification from the RWQCB is required before the USACE will issue a Section 404 Permit. In addition, if drainages on the project site meet the criteria established by Section 1600 of the *California Fish and Game Code*, the CDFG may require a Streambed Alteration Agreement prior to any modification of the bed, bank, or channel of streambeds on the project site.

A blueline drainage runs through the eastern portion of the project site. This drainage originates from the base of the San Joaquin Reservoir and flows north to the Bonita Reservoir. Water was flowing in this drainage at the time of the biological survey and the vegetation in this area consists of willow riparian and mule fat scrub; therefore, this portion of the project site may fall under USACE and/or CDFG jurisdiction.

Special Status Plant and Wildlife Species

Plants or wildlife may be considered to have "special status" due to declining populations, vulnerability to habitat change, or restricted distributions. Certain special status species have been listed as Threatened or Endangered under the California Endangered Species Act (CESA) and the Federal Endangered Species Act (FESA), and their potential presence may represent a constraint to project implementation.

Special Status Plants

Based on the results of the literature review described above, two federally or State-listed plant species are known to occur in the project vicinity: Laguna Beach dudleya (*Dudleya stolonifera*) and crownbeard (*Verbesina dissita*). Suitable habitat for Laguna Beach dudleya and crownbeard is not present on the project site; therefore, these species are not expected to occur. Additionally, several CNPS List 1B species have been reported to occur in the project vicinity including: aphanisma (*Aphanisma blitoides*), Coulter's saltbush (*Atriplex coulteri*), south

coast saltscale (*Atriplex pacifica*), Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*), summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*), many-stemmed dudleya (*Dudleya multicaulis*), cliff spurge (*Euphorbia misera*), mesa horkelia (*Horkelia cuneata* ssp. *puberula*), decumbent goldenbush (*Isocoma menziesii* var. *decumbens*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), mud nama (*Nama stenocarpum*), Nuttall's scrub oak (*Quercus dumosa*), and estuary seablite (*Suaeda esteroa*).

Although not formally listed by the resource agencies, impacts to these species may be found to be significant by the project's lead agency in accordance with Section 15380 of the California Environmental Quality Act (CEQA) Guidelines. Potential impacts to List 1B species would only be considered a constraint requiring mitigation if deemed significant by the lead agency under CEQA. Table 1 provides a summary of each special status plant species reported in the vicinity of the project site, including information on status and likelihood of occurrence.

The presence of CNPS List 3 (a review list) and 4 (a watch list) species does not normally present a constraint to development; impacts on these species are typically considered less than significant and do not require mitigation.

TABLE 1
SPECIAL STATUS PLANT SPECIES
REPORTED IN THE VICINITY OF THE PROJECT SITE

Species	Status			Likelihood for Occurrence
	USFWS	CDFG	CNPS	
Aphanisma blitoides aphanisma	_	_	1B.2	Not expected to occur due to lack of suitable habitat.
Atriplex coulteri Coulter's saltbush	–	–	1B.2	Not expected to occur due to lack of suitable habitat.
Atriplex pacifica south coast saltscale	_	_	1B.2	Not expected to occur due to lack of suitable habitat.
Atriplex parishii Parish's brittlescale	_	_	1B.1	Not expected to occur due to lack of suitable habitat.
Atriplex serenana var. *davidsonii* Davidson's saltscale	–	–	1B.2	Not expected to occur due to lack of suitable habitat.
Calochortus weedii var. *intermedius* intermediate mariposa lily	–	–	1B.2	May occur due to the presence of suitable habitat.
Chaenactis glabriuscula var. *orcuttiana* Orcutt's pincushion	_	_	1B.1	Not expected to occur due to lack of suitable habitat.
Comarostaphylis diversifolia ssp. *diversifolia* summer holly	_	_	1B.2	Not expected to occur due to lack of suitable habitat.
Dudleya multicaulis many-stemmed dudleya	_	_	1B.2	May occur due to the presence of suitable habitat.
Dudleya stolonifera Laguna Beach dudleya	FT	ST	1B.1	Not expected to occur due to lack of suitable habitat.
Euphorbia misera cliff spurge		–	2.2	Not expected to occur due to lack of suitable habitat.
Horkelia cuneata ssp. *puberula* mesa horkelia	_	_	1B.1	May occur due to the presence of limited suitable habitat.

TABLE 1 (Continued)
SPECIAL STATUS PLANT SPECIES
REPORTED IN THE VICINITY OF THE PROJECT SITE

Species	Status			Likelihood for Occurrence
	USFWS	CDFG	CNPS	
Isocoma menziesii var. *decumbens* decumbent goldenbush	_	_	1B.2	Not expected to occur due to lack of suitable habitat.
Lasthenia glabrata ssp. *coulteri* Coulter's goldfields	_	_	1B.1	Not expected to occur due to lack of suitable habitat.
Nama stenocarpum mud nama	_	_	2.2	Not expected to occur due to lack of suitable habitat.
Quercus dumosa Nuttall's scrub oak	_	_	1B.1	Not expected to occur due to lack of suitable habitat.
Suaeda esteroa estuary seablite	_	_	1B.1	Not expected to occur due to lack of suitable habitat.
Verbesina dissata crownbeard	FT	ST	1B.1	Not expected to occur due to lack of suitable habitat.

LEGEND

Federal (USFWS)
FT Threatened

State (CDFG)
ST Threatened

California Native Plant Society (CNPS) List Categories
List 1B Plants Rare, Threatened, or Endangered in California and Elsewhere
List 2 Plants Rare, Threatened, or Endangered in California But More Common Elsewhere
California Native Plant Society (CNPS) Threat Code Extensions
.1 Seriously Endangered in California (over 80% of occurrences threatened; high degree and immediacy of threat)
.2 Fairly Endangered in California (20–80% of occurrences threatened)

Special Status Wildlife

Several special status wildlife species have been reported in the vicinity of the project site based on the results of the literature review described above. The following federally and/or State-listed Endangered or Threatened species have been reported from the project vicinity: tidewater goby (*Eucyclogobius newberryi*), coastal California gnatcatcher, least Bell's vireo (*Vireo bellii pusillus*), and Pacific pocket mouse (*Perognathus longimembris pacificus*). Suitable habitat for the tidewater goby and Pacific pocket mouse is not present on the project site; therefore, these species are not expected to occur. Suitable habitat is present for the least Bell's vireo; therefore, this species may occur on the project site. Additionally, coastal California gnatcatchers were observed adjacent to the project site during the biological survey.

In addition to Threatened or Endangered species, several special status wildlife species have been reported in the vicinity of the project site including: monarch butterfly (*Danaus plexippus*), western spadefoot (*Spea* [*Scaphiopus*] *hammondii*), southwestern pond turtle (*Actinemys* [*Clemmys*] *marmorata pallida*), coast (San Diego) horned lizard (*Phrynosoma coronatum)*, orange-throated whiptail (*Aspidoscelis* [*Cnemidophorus*] *hyperythra*), northern red diamond rattlesnake (*Crotalus ruber ruber*), Cooper's hawk (*Accipiter cooperii*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), and big free-tailed bat (*Nyctinomops macrotis*). Impacts to these species may be considered significant by the lead agency if they are present within the impact footprint and if the size and status of the population warrant a finding of significance.

Table 2 provides a summary of each special status wildlife species reported in the vicinity of the project site, including information on status and likelihood of occurrence. The federally and/or State-listed Endangered or Threatened species with potential to occur on the project site are discussed in further detail below.

TABLE 2
SPECIAL STATUS WILDLIFE SPECIES
REPORTED IN THE VICINITY OF THE PROJECT SITE

Species	Status		Likelihood of Occurrence
	USFWS	CDFG	
Invertebrates			
Danaus plexippus monarch butterfly	–	–	May occur; suitable roosting habitat is present within the eucalyptus and pine trees that are primarily located in the western portion of the project site.
Fish			
Eucylogobius newberryi tidewater goby	FE	SSC	Not expected to occur; no suitable habitat is present on the project site.
Ampibians			
Spea (*Scaphiopus*) *hammondii* western spadefoot	–	SSC	Not expected to occur; no suitable habitat is present on the project site.
Reptiles			
Actinemys (*Clemmys*) *marmorata pallida* southwestern pond turtle	–	SSC	May occur; limited suitable habitat is present within the drainage located in the eastern portion of the project site.
Phrynosoma coronatum coast (San Diego) horned lizard	–	SSC	May occur; limited suitable habitat is present on the project site.
Aspidoscelis (*Cnemidophorus*) *hyperythra* orange-throated whiptail	–	SSC	May occur; limited suitable habitat is present on the project site.
Crotalus ruber ruber northern red-diamond rattlesnake	–	SSC	May occur; limited suitable habitat is present on the project site.
Birds			
Accipiter cooperii Cooper's hawk	–	SSC	May occur; suitable nesting and foraging habitat is present on the project site. Additionally, this species was observed on the site during the 2002 biological survey.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	–	SSC	May occur; limited suitable habitat is present on the project site. Additionally, more suitable habitat is present immediately adjacent to the site's eastern boundary.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	–	SSC	Not expected to occur; no suitable habitat is present on the project site.
Polioptila californica californica coastal California gnatcatcher	FT	SSC	May occur; suitable habitat is present within the coastal sage scrub vegetation located adjacent to the site's eastern boundary. Additionally, this species was observed adjacent to the project site during the biological survey.
Vireo bellii pusillus least Bell's vireo	FE	SE	May occur; suitable habitat is present within the riparian vegetation located in the eastern portion of the project site.

TABLE 2 (Continued)
SPECIAL STATUS WILDLIFE SPECIES
REPORTED IN THE VICINITY OF THE PROJECT SITE

Species	Status		Likelihood of Occurrence
	USFWS	CDFG	
Mammals			
Nyctinomops macrotis big free-tailed bat	–	SSC	Not expected to occur; no suitable roosting habitat is present on the project site.
Perognathus longimembris pacificus Pacific pocket mouse	FE	SSC	Not expected to occur; no suitable habitat is present on the project site.

LEGEND

Federal (USFWS)		State (CDFG)	
FE	Endangered	SE	Endangered
FT	Threatened	SSC	Species of Special Concern

Coastal California Gnatcatcher

Coastal California gnatcatcher is a federally listed Threatened species and a California Species of Special Concern. In California, this subspecies is an obligate resident of coastal sage scrub vegetation types. This species has been reported in the vicinity of the project site (CDFG 2009) and suitable habitat is present within the coastal sage scrub vegetation located adjacent to the site's eastern portion. Additionally, coastal California gnatcatchers were observed adjacent to the project site during the biological survey. Therefore, the coastal California gnatcatcher may occur on the project site.

On December 19, 2007, the U.S. Fish and Wildlife Service (USFWS) published a Final Rule revising critical habitat for the coastal California gnatcatcher. The revised critical habitat designates 197,303 acres of land in Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties, California (USFWS 2007). The project site is not located within designated critical habitat for this species.

Least Bell's Vireo

Least Bell's vireo is a federally and State-listed Endangered species. The least Bell's vireo breeds primarily in riparian habitats dominated by willows with dense understory vegetation (USFWS 1986). A dense shrub layer two to ten feet above ground is the most important habitat characteristic for this species (Goldwasser 1981; Franzreb 1989). Suitable habitat for this species is present in the riparian vegetation along the blueline drainage located in the project site's eastern portion. Therefore, the least Bell's vireo may occur on the project site.

On February 2, 1994, the USFWS published a final critical habitat for the least Bell's vireo, designating approximately 37,560 acres of land in Santa Barbara, Ventura, Los Angeles, San Bernardino, Riverside, and San Diego Counties, California (USFWS 1994). The project site is not located in designated critical habitat for this species.

Other Considerations

Wildlife Movement

The project site is surrounded by residential development; however, there is a blueline drainage which runs through the eastern portion of the project site. Therefore, local wildlife would be expected to move through the site on a regular basis. Additionally, this drainage connects

Bonita Reservoir to the north with the San Joaquin Reservoir to the south and includes a linear open space area between these two reservoirs. This area likely serves as a regional travel route for local wildlife to navigate through residential areas that surround the project site. However, given its small size and the fact that the project site is adjacent to existing indirect effects of urban development (e.g., night lighting, noise, and general human activity), the proposed project is not expected to impact regional wildlife movement through the surrounding area.

Migratory Bird Treaty Act

Vegetation on the project site could support nesting birds. Due to recent interpretations of the Migratory Bird Treaty Act (MBTA) and the expectations of many local and State agencies, it is recommended that measures to avoid disturbance of nesting birds be implemented or that all project activities be scheduled to avoid the nesting season (generally March 15 through September 15) of all birds that may potentially nest within the project site.

Nesting Raptors

The eucalyptus and pine trees that are primarily located in the western portion of the project site have potential to support nesting raptors. Additionally, a well-established red-tailed hawk nest was observed approximately 450 feet south of the project site during the 2002 biological survey. Regulations prohibit activities that "take, possess or destroy" any raptor nest or egg (*California Fish and Game Code* §§3503, 3503.5, and 3513). Therefore, if construction is initiated during the raptor nesting season (generally February 1 to June 30), a pre-construction raptor survey is recommended.

RECOMMENDATIONS

The following measures are recommended to minimize any direct or indirect effects of construction activities on biological resources and to protect special status resources:

- Construction activities should avoid impacts on the blueline drainage to avoid impacts on potential USACE/CDFG jurisdictional areas. No discharge or fill material would be allowed to impact the drainage. This would include runoff carrying sediment from construction activities. If construction activities may result in direct impacts on the drainage or riparian vegetation, a jurisdictional delineation is recommended.
- All construction activities will be limited to a well-defined area. Prior to grading and construction activities, the limits of disturbance will be fenced or staked by a qualified Biologist.
- All construction activities will be monitored by a qualified Biologist to ensure that no inadvertent impacts on biological resources occur.
- Special status plant species have potential to occur on the project site. Focused botanical surveys are recommended prior to construction activities in order to document the presence or absence of these species on the project site. Surveys should be conducted during the appropriate blooming period for these species. If no special status species are found on the project site, no additional action is warranted. If special status species are found, appropriate mitigation would be required.
- The willow scrub vegetation on the project site provides suitable nesting and foraging habitat for the least Bell's vireo. Due to potential direct impacts on this vegetation type, focused surveys for this species are recommended in order to determine this species presence or absence from the project site prior to any construction activities.

- To avoid impacts on nesting birds, construction activities should be conducted between September 16 and March 14. If construction occurs inside the peak nesting season (between March 15 and September 15), a pre-construction survey (or possibly multiple surveys) will be conducted prior to construction activities by a qualified Biologist to identify any active nesting locations. If the Biologist does not find any active nests within the project site, the construction work will be allowed to proceed. If the Biologist finds an active nest within the project site and determines that the nest may be impacted, the Biologist will delineate an appropriate buffer zone around the nest; the size of the buffer zone will depend on the affected species and the type of construction activity. Any active nests observed during the survey will be mapped on an aerial photograph. Only construction activities (if any) that have been approved by a Biological Monitor will take place within the buffer zone until the nest is vacated. The Biologist shall serve as a Construction Monitor during those periods when construction activities shall occur near active nest areas to ensure that no inadvertent impacts on these nests shall occur. Results of the pre-construction survey and any subsequent monitoring shall be provided to the CDFG and any other appropriate CEQA Lead Agency.

- State and federal regulations prevent disturbance to active raptor nests. A survey for active raptor nests by a qualified Biologist would be required prior to any habitat disturbance during the breeding season (generally February 1 through June 30). Any occupied nests found during survey efforts will be mapped on the construction plans. Some restrictions on construction activities may be required in the vicinity of the nest until the nest is no longer active as determined by a qualified Biologist. In many circumstances, a 300- to 500-foot buffer zone is designated around an active nest to minimize disturbance to the active nest. Once the nest is no longer in use for the season, construction can proceed within the buffer zone.

- Suitable habitat for the coastal California gnatcatcher is present within the coastal sage scrub vegetation that occurs immediately east of the project site. Additionally, gnatcatchers were observed in this area during the biological survey. If construction activities take place during the breeding season for this species (February 15–August 30 for areas within the NCCP), a pre-construction survey is recommended in order to determine the presence or absence of this species from the project site. If this species is found to occur on the project site during the breeding season, consultation and permitting through the USFWS would be required.

- A limited amount of suitable habitat for the coast horned lizard, orange-throated whiptail, and southwestern pond turtle is present on the project site, and there are known occurrences of these species in the vicinity of the project site (CNDDB 2009). A pre-construction survey should be conducted prior to any ground disturbance in order to determine these species' presence/absence from the project site. If no coast horned lizards, orange-throated whiptails, or southwestern pond turtles are found on the project site during the pre-construction survey, no additional action is warranted. If these species are found, appropriate mitigation may be required.

Thank you for the opportunity to prepare this Letter Report. If you have any questions or comments, please contact Ann Johnston or Lindsay Messett at (714) 444-9199.

Sincerely,

BONTERRA CONSULTING

Ann M. Johnston
Principal, Biological Services

Lindsay A. Messett
Ecologist

Attachments: Exhibits 1, 2, 3, and 4
Appendix A

R:\Projects\RBF\J499\Final Bio Constraints-020410.doc

REFERENCES

Abrams, L. and R. Ferris. 1960. *Illustrated Flora of the Pacific States.* Vol. IV: Bignonias to Sunflowers (*Bignoniaceae* to *Compositae*). Stanford, CA: Stanford University Press.

Abrams, L. 1951. *Illustrated Flora of the Pacific States.* Vol. III: Geraniums to Figworts (*Geraniaceae* to *Scrophulariaceae*). Stanford, CA: Stanford University Press.

——— 1944. *Illustrated Flora of the Pacific States.* Vol. II: Buckwheats to Kramerias (*Polygonaceae* to *Krameriaceae*). Stanford, CA: Stanford University Press.

———. 1923. *Illustrated Flora of the Pacific States.* Vol. I: Ferns to Birthworts (*Ophioglossaceae* to *Aristolochiaceae*). Stanford, CA: Stanford University Press.

American Ornithologists' Union (AOU). 2008. *Check-list of North American Birds* (7th ed., as revised through 49th Supplement). Washington, D.C.: AOU. http://www.aou.org/checklist/index.php3.

Baker, R.J., L.C. Bradley, R.D. Bradley, J.W. Dragoo, M.D. Engstrom, R.S. Hoffmann, C.A. Jones, F. Reid, D.W. Rice, and C. Jones. 2003 (December). Revised Checklist of North American Mammals North of Mexico, 2003. *Occasional Papers (No. 229).* Waco, TX: Museum of Texas Tech University.

California Department of Fish and Game (CDFG). 2009. California Natural Diversity Database. Records of Occurrence for the USGS Laguna Beach 7.5-minute quadrangle. Sacramento, CA: CDFG, Natural Heritage Division.

California Office of Administrative Law. 2009. *California Code of Regulations* (Title 14, Natural Resources; Division 6, Resources Agency; Chapter 3, Guidelines for Implementation of the California Environmental Quality Act). Sacramento, CA: the State of California. http://weblinks.westlaw.com/result/default.aspx?action=Search&cfid=1&cnt=DOC&db=CA%2DADC&eq=search&fmqv=c&fn=%5Ftop&method=TNC&n=1&origin=Search&query=CI%28%2214+CA+ADC+S+15000%22%29&rlt=CLID%5FQRYRLT7410354617911&rlt

db=CLID%5FDB3774414617911&rlti=1&rp=%2Fsearch%2Fdefault%2Ewl&rs=GVT1%2E0&service=Search&sp=CCR%2D1000&srch=TRUE&ss=CNT&sv=Split&tempinfo=FIND&vr=2%2E.

California Native Plant Society (CNPS). 2009. Electronic Inventory of Rare and Endangered Vascular Plants of California (v7-08b). Records of Occurrence for the USGS Laguna Beach 7.5-minute quadrangle Sacramento, CA: CNPS. http://www.cnps.org/inventory.

California, State of. 2009. *California Fish and Game Code* (Sections 3500–3516, protection of resident and migratory game birds). Sacramento, CA: the State. http://info.sen.ca.gov/cgi-bin/waisgate?WAISdocID=84805710464+1+0+0&WAISaction=retrieve.

California Water Resources Control Board (SWRCB). 2009 (January 1, amendments through). Porter-Cologne Water Quality Control Act (With Additions and Amendments Effective January 1, 2009). Sacramento, CA: SWRCB. http://www.swrcb.ca.gov/laws_regulations/docs/portercologne.pdf.

Franzreb, K.E. 1989. *Ecology and Conservation of the Endangered Least Bell's Vireo* (Biological Report 89[1]) Washington, D.C.: USFWS, Endangered Species Office.

Goldwasser, S. 1981. *Habitat Requirements of the Least Bell's Vireo* (Final Report, Job IV-38.1). Sacramento, CA: CDFG.

Gray, J. and D. Bramlet. 1992. *Habitat Classification System Natural Resources Geographic Information System (GIS) Project* (Prepared for the County of Orange Environmental Management Agency). Santa Ana, CA: Gray and Bramlet.

Hickman, J.C., Ed. 1993. *The Jepson Manual of Higher Plants of California*. Berkeley, CA: University of California Press.

Munz, P.A. 1974. *A Flora of Southern California*. Berkeley, CA: University of California Press.

Orange, County of. 1996a (July). *Implementation Agreement Regarding the Natural Community Conservation Plan for the Central/coastal Orange County Subregion of the Coastal Sage Scrub Natural Community Conservation Program.* Santa Ana, CA: the County.

———. 1996b (July). *Natural Community Conservation Plan and Habitat Conservation Plan, County of Orange, Central and Coastal Subregion.* Santa Ana, CA: the County.

Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians* (3rd ed.). Boston, MA: Houghton-Mifflin Company.

U.S. Congress. 2005 (as amended). *United States Code* (Title 16, Chapter 7). Protection of Migratory Game and Insectivorous Birds (Subchapter II: Migratory Bird Treaty).

———. 1977. *33 United States Code* (Sections 1251 et seq.) (U.S. Clean Water Act). Washington, D.C.: U.S. Government Printing Office.

U.S. Fish and Wildlife Service (USFWS). 2007 (December 19). Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Coastal California Gnatcatcher (*Polioptila californica californica*); Final Rule. *Federal Register* 72(243): 72009–72213. Washington, D.C.: USFWS.

———. 1994. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Least Bell's Vireo. *Federal Register* 59(22): 4845–4867. Washington, D.C.: USFWS.

———. 1986 (May 2). Endangered and Threatened Wildlife and Plants; Determination of Endangered Status for the Least Bell's Vireo. *Federal Register* 51(85):16474–16482. Washington, D.C.: USFWS.

D:\Projects\RBF\J499\MXD\Ex_RL.mxd

Project Location

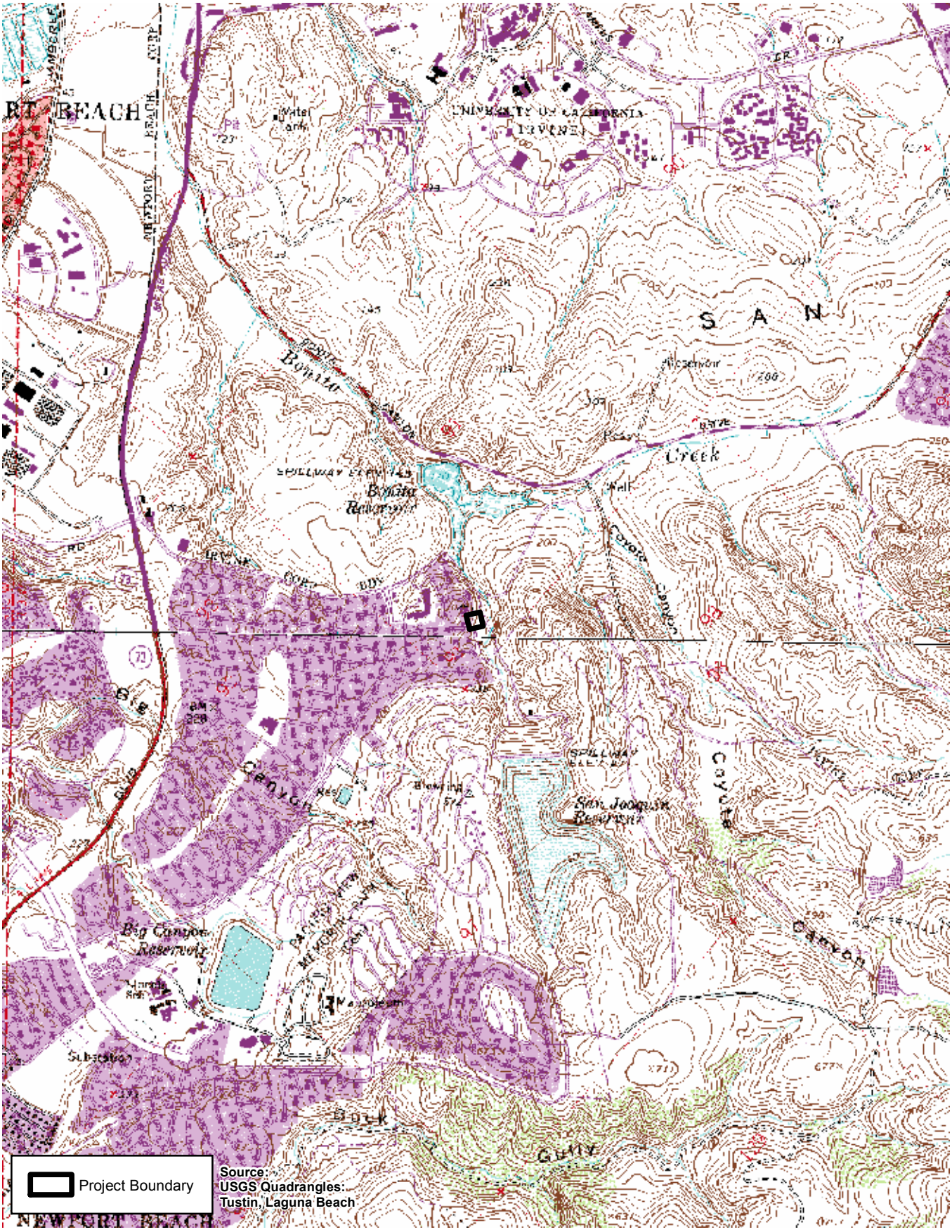
Exhibit 1

OC-44 Underground Booster Pump Station Project Site
Newport Beach, Orange County, California

10 5 0 10 Miles

BonTerra CONSULTING

R:\Projects\RBF\J499\Graphics\Constraints\Ex1_RL.pdf



D:\Projects\RBF\J499\MXD\Ex_LV.mxd

Local Vicinity

Exhibit 2

OC-44 Underground Booster Pump Station Project Site
Newport Beach, Orange County, California

BonTerra CONSULTING

R:\Projects\RBF\J499\Graphics\Constraints\Ex2_LV.pdf

D:/Projects/RBF\J499\Graphics\ex_PS.ai

Project Site

Exhibit 3

OC-44 Underground Booster Pump Station Project Site
Newport Beach, Orange County, California

B-16

BonTerra CONSULTING

(rev: jfg 020310)R:\Projects\RBF\J499\Graphics\Constraints\ex3_PS.pdf

Representative site photograph depicting willow scrub vegetation, looking southeast.

Representative site photograph, looking south.

Representative site photograph looking north.

Representative site photograph depicting ornamental vegetation, looking northwest.

D:/Projects/rbf/j499/Graphics/ex_sp_012910.ai

Site Photographs

Exhibit 4

OC-44 Underground Booster Pump Station Project Site, Newport Beach, Orange County, California

BonTerra CONSULTING

R:/projects/RBF/j499/graphics/constraints/ex4_sp_012910.pdf

APPENDIX A

PLANT AND WILDLIFE COMPENDIA

TABLE A-1
PLANT SPECIES OBSERVED ON THE PROJECT SITE

GYMNOSPERMS
PINACEAE – PINE FAMILY
Pinus sp. pine
FLOWERING PLANTS
CLASS DICOTYLEDONES (DICOTS)
ANACARDIACEAE – SUMAC FAMILY
Rhus integrifolia lemonadeberry
*Schinus molle** Peruvian pepper tree
ASTERACEAE (COMPOSITAE) – SUNFLOWER FAMILY
Artemisia californica California sagebrush
Baccharis pilularis coyote brush
Baccharis salicifolia mule fat
MYRTACEAE – MYRTLE FAMILY
Eucalyptus sp.* gum
POLYGONACEAE – BUCKWHEAT FAMILY
Eriogonum fasciculatum var. *fasciculatum* California buckwheat
ROSACEAE – ROSE FAMILY
Heteromeles arbutifolia toyon/christmas berry
SALICACEAE – WILLOW FAMILY
Salix lasiolepis arroyo willow
CLASS MONOCOTYLEDONES (MONOCOTS)
ARECACEAE (PALMAE) – PALM FAMILY
*Washingtonia robusta** Mexican fan palm
POACEAE [GRAMINEAE] – GRASS FAMILY
Avena sp.* wild oat
Bromus sp. brome grass
TYPHACEAE – CATTAIL FAMILY
Typha angustifolia narrow-leaved cattail
** introduced species*

TABLE A-2
WILDLIFE SPECIES OBSERVED OR DETECTED ON THE PROJECT SITE

Species
Reptiles
PHRYNOSOMATIDAE – ZEBRA-TAILED, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS
Sceloporus occidentalis western fence lizard
Birds
ACCIPITRIDAE – HAWKS
Buteo jamaicensis red-tailed hawk
TROCHILIDAE – HUMMINGBIRDS
Calypte anna Anna's hummingbird
Selasphorus rufus rufous hummingbird
Selasphorus sasin Allen's hummingbird
TYRANNIDAE – TYRANT FLYCATCHERS
Sayornis nigricans black phoebe
CORVIDAE – JAYS & CROWS
Corvus brachyrhynchos American crow
AEGITHALIDAE – BUSHTITS
Psaltriparus minimus bushtit
REGULIDAE – KINGLETS
Regulus calendula ruby-crowned kinglet
SYLVIIDAE – GNATCATCHERS
Polioptila californica California gnatcatcher
MIMIDAE – THRASHERS
Mimus polyglottos northern mockingbird
PARULIDAE – WARBLERS
Dendroica coronata yellow-rumped warbler
Geothlypis trichas common yellowthroat
EMBERIZIDAE – SPARROWS & JUNCOS
Pipilo maculatus spotted towhee
Pipilo crissalis California towhee
Zonotrichia leucophrys white-crowned sparrow

TABLE A-2 (Continued)
WILDLIFE SPECIES OBSERVED OR DETECTED ON THE PROJECT SITE

Species
FRINGILLIDAE – FINCHES
Carpodacus mexicanus house finch
Carduelis psaltria lesser goldfinch
Mammals
LEPORIDAE – HARES & RABBITS
Sylvilagus audubonii desert cottontail
SCIURIDAE – SQUIRRELS
Spermophilus beecheyi California ground squirrel
CANIDAE – WOLVES & FOXES
Canis latrans coyote
** introduced species*

INTENTIONALLY LEFT BLANK

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

February 23, 2010 6483-01

Josie McKinley
Director of Project Development
Poseidon Resources
17011 Beach Boulevard, Suite 910
Huntington Beach, California 92647

Subject: Results of the Biological Survey for Option 2 for the Location of the OC-44 Underground Booster Pump Station Project Site, Newport Beach, Orange County, California

Dear Ms. McKinley:

This report presents the findings of the biological survey conducted for Option 2 for the location of the OC-44 Underground Booster Pump Station Project Site located in Newport Beach, Orange County, California (Figure 1). Dudek biologist Traci Caddy conducted a general plant and wildlife survey on January 18, 2010, in order to evaluate impacts associated with the desalination plant underground booster pump station. This report describes the results of biological surveys; discusses survey methods, vegetation communities, and special-status biological resources present or potentially present within the study area; and makes project recommendations.

PROJECT LOCATION

The project area is located on the U.S. Geological Survey (USGS) Tustin 7.5-minute quadrangle map in unsectioned lands. The project area is approximately 197 feet above mean sea level (amsl) and is located along the eastern side of Ford Road. Adjacent land uses include residential to the west, riparian habitat directly to the east, and Ford Road to the north and south of the project area.

The County of Orange, in conjunction with the state and federal resource agencies, local jurisdictions, utility companies, the Transportation Corridor Agencies, and major private landowners, approved the Natural Communities Conservation Planning Program/Habitat Conservation Plan (NCCP/HCP) for the Central–Coastal Subregion on July 10, 1996, through the execution of the NCCP/HCP Implementation Agreement. The project site occurs in the Central–Coastal NCCP/HCP area, and is directly adjacent to, but outside of, the reserve in areas called out as “urban” (Figure 2).

METHODS

On January 18, 2010, from 11:15 a.m. to 1:15 p.m., Dudek biologist Traci Caddy conducted a general plant and wildlife survey on the project area. The project location and a 100-foot buffer from the boundaries of the project location were surveyed for biological resources and potential constraints (Figure 3). Weather conditions included 100% cloud cover, winds ranging from 5–10 mph, and temperatures ranging from 50°F to 55°F. Survey conditions were suitable for determining potential biological constraints and observing wildlife species. The area was methodically surveyed, providing 100% visual coverage, and potential constraints (e.g., special-status species and wetlands) were identified and inventoried.

Plants were identified using taxonomic keys in Hickman (1996). Vegetation types were classified based on Gray and Bramlet (1992). Taxonomy and nomenclature for wildlife generally follows Stebbins (2003) for amphibians and reptiles, Sibley (2001) for birds, and Baker et al. (2003) for mammals.

While a formal delineation of waters of the U.S., including wetlands, was not conducted, the potential for these resources to occur on site was evaluated.

Prior to conducting the field investigation, a review of the existing biological resources and species within the vicinity of the project site was conducted using the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2010) and the California Department of Fish and Game's (CDFG's) California Natural Diversity Database (CNDDB) (CDFG 2010). Specifically, Dudek reviewed the online version of the CNPS Inventory of Rare and Endangered Plants (CNPS 2010) and conducted a CNPS nine-quad search for the USGS Tustin 7.5-minute quadrangle. Soils were reviewed according to the *Soil Survey of Orange County and Western Part of Riverside County, California* (USDA 1978). The purpose of this review was to determine if special-status plant and wildlife species are known to occur within the project area or in the nearby vicinity of the project area.

SURVEY LIMITATIONS

The surveys were conducted during the winter season. Most of the perennial plant species that could occur in the area were detectable. Due to the timing of the surveys, annual and cryptic perennials may not have been detectable. Conditions were suitable for detection of wildlife species (i.e., 100% cloud cover, 50°F–55°F temperatures, and calm winds) and detection of winter migratory birds. However, some breeding birds, nocturnal mammals, and most reptiles

would not have been detectable at the time of the survey due to general weather, temperature, temporal, or seasonal constraints.

RESULTS

Study Area Description

The 0.14-acre pump station location is primarily a developed area that consists of a gravel-covered turn-out on the eastern side of Ford Road. Southern willow scrub is adjacent to the project area directly east of the turn-out in the 100-foot buffer area. Access to the project area would be from Ford Road. Topography on the 0.14-acre site is relatively level and elevations range from approximately 195 to 197 feet amsl.

Soils

According to the *Soil Survey of Orange County and Western Part of Riverside County, California* (USDA 1978), the project site supports two soil types: Calluguas clay loam, 50% to 75% slopes, eroded; and Bosanko clay, 15% to 30% slopes.

Calleguas clay loam, 50% to 75% slopes, occurs on south-facing slopes and typical land use is range, watershed, and urban development. In areas that have been cultivated, overgrazed, or burned, 75% of the original surface layer has been lost. The soil is moderately permeable, but runoff can be rapid and erosion hazard is high if the soil is bare, and geologic erosion is active with soil slipping common. Soil is moderately alkaline and calcareous with surface soil pale brown clay that is 15 inches thick.

Bosanko clay, 15% to 30% slopes, generally occurs on north-facing slopes and typical land use is range and watershed. It is well drained, but runoff can be rapid and erosion hazard is high if the soil is bare. This soil is mildly alkaline in the upper 12 inches and supports annual grasses, mustard, and other forbs. The surface layer is typically dark gray clay that is 25 inches thick.

Vegetation Communities

Based on species composition and general physiognomy, one community was identified in the project area. A detailed description is provided below. The acreage is provided in Table 1, and a map depicting its location on site is provided in Figure 3. Figure 3 also shows the vegetation communities that are adjacent to the project site (i.e., within 100 feet of the project site).

Table 1
Acreages of Vegetation Communities and Land Covers

Vegetation Community/Land Cover	*Acres*
Developed land	0.14
Total	**0.14**

Developed

Developed land describes areas occupied by structures, pavement, or other surfaces that have been previously graded and do not contain vegetation. On site, developed land includes the Ford Road turn-out, which has been graded, compacted, and covered with gravel. There is little to no vegetation in this area.

Jurisdictional Waters of the U.S.

There is no potential for jurisdictional waters of the U.S. to occur on site. Therefore, a formal wetlands delineation is not required

Wildlife

Seven bird species were detected within the project area during surveys. Bird species observed on the project site include Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), western scrub jay (*Aphelocoma californica*), bushtit (*Psaltriparus minimus*), yellow-rumped warbler (*Dendroica coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), and house finch (*Carpodacus mexicanus*).

Floral Diversity

Eight plant species were detected within the project study area: five native species and three non-native species. Plant species observed on the project site include gum trees (*Eucalyptus* sp.), mulefat (*Baccharis salicifolia*), cottonwood (*Populus fremontii*), coyote bush (*Baccharis salicifolia*), arroyo willow (*Salix lasiolepis*), California sagebrush (*Artemesia californica*), Peruvian peppertree (*Schinus molle*), and Mexican fan palm (*Washingtonia robusta*).

Special-Status Species

Special-status species that have been reported in the CNDDB within 0.5 mile of the project area are shown in Figure 4 (CDFG 2010). The potential for special-status wildlife and plants to occur on the project site is described below.

Special-Status Wildlife

Table 2 lists special-status wildlife species that are Covered Species under the Central-Coastal Subregion NCCP/HCP, or that are known to occur in the vicinity of the study area (CDFG 2010). For each species listed, a determination is made regarding the potential use of the study area based on information gathered during the biological surveys, known habitat preferences, and knowledge of their relative distributions in the area.

Several special-status wildlife species have been reported in the vicinity of the project site based on the results of the literature review described above. The following federally and/or state-listed endangered or threatened have CNDDB occurrences within 0.5 mile of the project area: least Bell's vireo (*Vireo bellii pusillus*), California gnatcatcher (*Polioptila californica*), and Pacific pocket mouse (*Perognathus longimembris pacificus*). Suitable habitat for least Bell's vireo exists immediately adjacent to the project area in the riparian area, but it would not be directly affected by the project since there is direct access to the project area. Focused surveys would only be necessary if construction occurred during its breeding season (i.e., April 10 and August 30) and noise could not be reduced to below 60 dBA(leq) in the riparian habitat.

Suitable habitat (i.e., scrub habitats) for coastal California gnatcatcher occurs within the vicinity, as indicated by the CNDDB location, but suitable habitat does not occur within the area of influence of the project site. Due to a lack of habitat, focused surveys would not be required. The CNDDB location for Pacific pocket mouse is a buffered point that originates well away from the project site. Suitable habitat for Pacific pocket mouse does not occur on the project site or the surrounding area. The soils are too clayey and do not occur within or adjacent to riparian zones, but instead on marine terraces. Focused trapping studies would not be necessary.

The following special-status species have CNDDB occurrences within the project area: yellow-breasted chat (*Icteria virens*), coastal cactus wren (*Campylorhynchus brunneicapillus*), and white-tailed kite (*Elanus leucurus*). Suitable habitat for yellow-breasted chat and white-tailed kite occurs adjacent to the project site in riparian habitat, but it would not be directly affected by the project since there is direct access to the project area. There is no suitable cactus wren habitat on site or in the surrounding areas. Focused surveys for these species would not be required.

Table 2
Special-Status Wildlife Species Detected or Potentially Occurring in Project Area

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Amphibians				
Aneides lugubris	Arboreal Salamander	None/ None/ Covered	Chaparral in Southern California; valley-foothill hardwood, valley-foothill hardwood-conifer, mixed conifer habitats, Douglas fir and redwood elsewhere.	Not expected to occur. There is no suitable habitat on the project area for this species.
Batrachoseps nigriventris	Black-bellied slender salamander	None/ None/ Covered	Swales and drainages in open oak, mixed conifer forests, and mixed chaparral with abundant rocks, litter, or woody debris.	Not expected to occur. There is no suitable habitat on the project area for this species.
Anaxyrus californicus	Arroyo toad	FE/ CSC/ Covered	Stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.
Ensatina klauberi	Large-blotched salamander	None/ CSC/ None	Oak woodland, chaparral, coastal sage scrub, coastal dunes, conifer forest.	Not expected to occur. There is no suitable habitat on the project area for this species.
Rana draytoni	California red-legged frog	FT/ CSC/ None	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still or slow-moving water; uses adjacent uplands.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.
Rana muscosa	Sierra Madre yellow-legged frog	FE / CSC/ None	Meadow streams, isolated pools, lake borders, rocky stream courses within ponderosa pine, montane hardwood-conifer and montane riparian habitat types.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.
Spea [=*Scaphiopus*] *hammondi*	Western spadefoot	None/ CSC/ Covered	Most common in grasslands, coastal sage scrub near rain pools or vernal pools; riparian habitat.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Taricha torosa torosa	Coast Range newt	None/ CSC/ None	Coastal drainages; lives in terrestrial habitats and will migrate over 1 km to ponds, reservoirs, and slow-moving streams.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.
Reptiles				
Actinemys [=*Emys*] *marmorata pallida*	Southwestern pond turtle	None/ CSC/ None	Slow-moving permanent or intermittent streams, ponds, small lakes, reservoirs with emergent basking sites; adjacent uplands used during winter.	Not expected to occur. There is suitable habitat adjacent to the project area for this species, but not on the project site. There is CNDDB occurrence data for this species near the project area.
Anniella pulchra pulchra	Silvery legless lizard	None/ CSC/ None	Loose soils (sand, loam, humus) in coastal dune, coastal sage scrub, woodlands, and riparian habitats.	Low potential to occur. There is suitable habitat adjacent to the project area for this species, but not on the project area.
Arizona elegans occidentalis	California glossy snake	None/ None/ None	Arid scrub, rocky washes, grasslands, and chaparral.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Aspidoscelis hyperythra [=*Cnemidophorus hyperythrus*]	Orange-throated whiptail	None/ CSC/ Covered	Coastal sage scrub, chaparral, grassland, juniper, and oak woodland.	Low potential to occur. Suitable habitat exists around the project area, but not on the project area.
Aspidoscelis tigris stejnegeri [=*Cnemidophorus tigris multiscutatus*]	Coastal western whiptail	None/ None/ Covered	Coastal sage scrub, chaparral.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Charina [=Lichanura] trivirgata roseofusca	Coastal rosy boa	None/ None/ Covered	Rocky chaparral, coastal sage scrub, oak woodlands, desert and semi-desert scrub.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Crotalus ruber ruber	Northern red-diamond rattlesnake	None/ CSC/ Covered	Variety of shrub habitats where there is heavy brush, large rocks, or boulders.	Low potential to occur. There is suitable habitat surrounding the project area, but not on the project area.
Diadophis punctatus modestus	San Bernardino ringneck snake	None/ None/ Covered	Open, rocky, and somewhat moist areas near intermittent streams: grasslands, sage scrub.	Low potential to occur. There is suitable habitat surrounding the project area, but this species is not known to occur in the area.
Eumeces skiltonianus interparietalis	Coronado skink	None/ CSC/ Covered	Grassland, riparian and oak woodland; found in litter, rotting logs, under flat stones.	Low potential to occur. Suitable habitat exists around the project area, but not on the project area.
Lampropeltis zonata (parvirubra) (San Bernardino population)	California mountain kingsnake (San Bernardino population)	None/ CSC/ None	Valley-foothill hardwood, hardwood-conifer, chaparral, coniferous forest, wet meadow.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Lampropeltis zonata (*pulchra*) (San Diego population)	California mountain kingsnake (San Diego population)	None/ CSC/ None	Valley-foothill hardwood, hardwood-conifer, chaparral, coniferous forest, wet meadow.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Phrynosoma coronatum (*blainvillei* population)	Coast (San Diego) horned lizard	None/ CSC/ Covered	Coastal sage scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest.	Low potential to occur. Suitable habitat exists around the project area, but not on the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Masticophis flagellum piceus	Red coachwhip	None/ None/ None	Open areas of desert, grassland, scrub, and sagebrush. Rocky and sandy.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Salvadora hexalepis virgultea	Coast patch-nosed snake	None/ CSC/ None	Chaparral, washes, sandy flats, rocky areas.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Thamnophis hammondii	Two-striped garter snake	None/ CSC/ None	Marshes, meadows, sloughs, ponds, slow-moving water courses.	Not expected to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Thamnophis sirtalis ssp.	South Coast garter snake	None/ CSC/ None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools.	Not expected to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/ WL/ None	Riparian and oak woodlands, montane canyons.	Low potential to occur. There is suitable habitat surrounding the project area, but not on the project area.
Accipiter striatus (nesting)	Sharp-shinned hawk	None/ WL/ Covered	Nests in coniferous forests, ponderosa pine, black oak, riparian deciduous, mixed conifer, Jeffrey pine; winters in lowland woodlands and other habitats.	Low potential to occur. There is suitable habitat surrounding the project area, but not on the project area. Does not nest on coastal slope in Southern California.
Agelaius tricolor	Tricolored blackbird	BCC, USBC/ CSC/ None	Nests near fresh water, emergent wetland with cattails or tules; forages in grasslands, woodland, agriculture.	Not expected to occur. There is no suitable habitat surrounding the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/ WL/ Covered	Grass-covered hillsides, coastal sage scrub, chaparral with boulders and outcrops.	Not expected to occur. There is no suitable habitat surrounding the project area.
Ammodramus savannarum	Grasshopper sparrow	None/CSC/None	Open grasslands and prairies with patches of bare ground.	Not expected to occur. There is no suitable habitat surrounding the project area.
Amphispiza belli belli	Bell's sage sparrow	BCC/ WL/ None	Coastal sage scrub and dry chaparral along coastal lowlands and inland valleys.	Not expected to occur. There is no suitable habitat surrounding the project area.
Aquila chrysaetos (nesting and non-breeding/wintering)	Golden eagle	BCC/ P, WL/ Covered	Open country, especially hilly and mountainous regions; grassland, coastal sage scrub, chaparral, oak savannas, open coniferous forest.	Low potential to occur. There is no suitable habitat on the project area for this species.
Asio flammeus	Short-eared owl	BCC/ CSC/ None	Grassland, prairies, dunes, meadows, irrigated lands, saline and freshwater emergent wetlands.	Not expected to occur. There is no suitable habitat surrounding the project area.
Asio otus	Long-eared owl	None/ CSC/ None	Riparian, live oak thickets, other dense stands of trees, edges of coniferous forest.	Low potential to occur. There is suitable habitat surrounding the project area, but not on the project area.
Athene cunicularia (burrow sites & some wintering sites)	Burrowing owl	None/ CSC/ None	Grassland, lowland scrub, agriculture, coastal dunes, and other artificial open areas.	Not expected to occur. There is no suitable habitat on the project area for this species.
Buteo lagopus	Rough-legged hawk	None/ None/ Covered	Does not breed in California. Occurs regularly at Southern California lakes. Frequents open areas near riparian or other wooded habitats.	Low potential to occur. There is no suitable habitat on the project area for this species.
Buteo lineatus	Red-shouldered hawk	None/ None/ Covered	Nests in dense riparian areas, especially with adjacent edges, swamps, marshes, and wet meadows for hunting.	Low potential to occur. This species may utilize the trees adjacent to the project area.
Buteo regalis (Nonbreeding/wintering)	Ferruginous hawk	BCC/ WL/ None	Open, dry country, grasslands, open fields, agriculture.	Low potential to occur. There is no suitable habitat on the project area for this species.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Buteo swainsoni (nesting)	Swainson's hawk	BCC / ST/ None	Open grassland, shrublands, croplands.	Low potential to occur. There is no suitable habitat on the project area for this species.
Campylorhynchus brunneicapillus sandiegensis (San Diego & Orange Counties only)	Coastal cactus wren	BCC/ CSC/ Covered	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub.	Not expected to occur. There is no suitable habitat surrounding the project area.
Charadrius alexandrinus nivosus (nesting)	Western snowy plover	FT, BCC, USBC/ CSC/ None	Nests primarily on coastal beaches, in flat open areas, with sandy or saline substrates; less commonly in salt pans, dredged spoil disposal sites, dry salt ponds and levees.	Not expected to occur. This species is not known to occur near the project area. There is no suitable habitat for this species in the project area.
Charadrius montanus (Nonbreeding/wintering)	Mountain plover	BCC, USBC/ CSC/ None	Nests in open, shortgrass prairies or grasslands; winters in shortgrass plains, plowed fields, open sagebrush, and sandy deserts.	Not expected to occur. This species is not known to occur near the project area. There is no suitable habitat for this species in the project area.
Chlidonias niger (nesting colony)	Black tern	None/ CSC/ None	Freshwater lakes, marshes, ponds, coastal lagoons.	Not expected to occur. There is no suitable habitat for this species in the project area.
Circus cyaneus (nesting)	Northern harrier	None/ CSC/ Covered	Open wetlands (nesting), pasture, old fields, dry uplands, grasslands, rangelands, coastal sage scrub.	Not expected to occur. There is no suitable nesting habitat for this species in the project area.
Coccyzus americanus occidentalis (nesting)	Western yellow-billed cuckoo	FC, BCC/ SE/ None	Dense, wide riparian woodlands and forest with well-developed understories.	Not expected to occur. There is no suitable habitat for this species in the project area.
Cypseloides niger (nesting)	Black swift	BCC, USBC/ CSC/ None	Nests in moist crevices or caves on sea cliffs or near waterfalls in deep canyons; forages over many habitats.	Not expected to occur. There is no suitable nesting habitat for this species in the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Dendroica petechia brewsteri (nesting)	Yellow warbler	None/ CSC/ None	Nests in lowland and foothill riparian woodlands dominated by cottonwoods, alders and willows; winters in a variety of habitats.	Low potential to occur. There is no suitable habitat on the project area for this species.
Elanus leucurus (nesting)	White-tailed kite	None/ P/ None	Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian.	Low potential to occur. There is CNDDB occurrence data within 0.5 mile of the project area; however, suitable habitat does not occur on the project area, but potential nesting habitat does occur in the adjacent riparian area.
Empidonax traillii extimus (nesting)	Southwestern willow flycatcher	FE, USBC/ SE/ Covered	Riparian woodlands along streams and rivers with mature, dense stands of willows or alders; may nest in thickets dominated by tamarisk.	Low potential to occur. There is habitat adjacent to the project area for this species.
Eremophila alpestris actia	California horned lark	None/ WL/ None	Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields.	Low potential to occur. There is CNDDB occurrence data within .5 mile of the project area; however, suitable habitat does not occur on the project area or in the immediate vicinity.
Falco columbarius (Nonbreeding/wintering)	Merlin	None/ WL/ None	Nests in open country, open coniferous forest, prairie; winters in open woodlands, grasslands, cultivated fields, marshes, estuaries and sea coasts.	Low potential to occur. There is no suitable habitat in the project area for this species.
Falco mexicanus (nesting)	Prairie falcon	BCC/ WL/ Covered	Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs.	Low potential to occur. There is no suitable habitat in the project area for this species.
Falco peregrinus anatum (nesting)	American peregrine falcon	BCC, (FD)/ SE, P/ Covered	Nests on cliffs, buildings, bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present.	Low potential to occur. May occur in the areas adjacent to the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Haliaeetus leucocephalus (nesting and nonbreeding/wintering)	Bald eagle	(FD)/ SE, P/ None	Seacoasts, rivers, swamps, large lakes; winters at large bodies of water in lowlands and mountains.	Not expected to occur. There is no suitable habitat surrounding the project area.
Icteria virens (nesting)	Yellow-breasted chat	None/ CSC/ None	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles and dense brush.	Low potential to occur. There is no suitable habitat and the project area. There is CNDDB occurrences for this species within 0.5 mile of the project area. Suitable habitat exists adjacent to the project area.
Ixobrychus exilis (nesting)	Least bittern	None/ CSC/ None	Dense emergent wetland vegetation, sometimes interspersed with woody vegetation and open water.	Not expected to occur. There is no suitable habitat on the project area for this species.
Lanius ludovicianus	Loggerhead shrike	BCC/ CSC/ None	Open ground including grassland, coastal sage scrub, broken chaparral, agriculture, riparian, open woodland.	Low potential to occur. There is suitable adjacent the project area. Not likely to occur on the project area.
Laterallus jamaicensis coturniculus	California black rail	BCC, USBC/ ST, P/ None	Saline, brackish, and fresh emergent wetlands.	Not expected to occur. There is no suitable habitat on the project area for this species.
Numenius americanus (nesting)	Long-billed curlew	BCC, USBC/ WL/ None	Nests in upland shortgrass prairies and wet meadows in northeast California; winters in coastal estuaries, open grasslands and croplands.	Not expected to occur. There is no suitable habitat on the project area for this species.
Otus flammeolus (nesting)	Flammulated owl	BCC, USBC/ None/ None	Summer resident in a variety of coniferous habitats, including ponderosa and Jeffrey pine; rests near tops of trees.	Not expected to occur. There is no suitable habitat on the project area for this species. Outside of range of species.
Pandion haliaetus (nesting)	Osprey	None/ WL/ None	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast.	Not expected to occur. There is no suitable habitat on the project area for this species.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/ SE/ None	Saltmarsh, pickleweed.	Not expected to occur. There is no suitable habitat on the project area for this species.
Passerculus sandwichensis rostratus (Nonbreeding/wintering)	Large-billed savannah sparrow	None/ CSC/ None	Saltmarsh, pickleweed.	Not expected to occur. There is no suitable habitat on the project area for this species.
Pelecanus erythrorhynchos (nesting colony)	American white pelican	None/ CSC/ None	Open water, coastal bays, large inland lakes.	Not expected to occur. There is no suitable habitat on the project area for this species.
Pelecanus occidentalis californicus (nesting colony and communal roosts)	California brown pelican	FE/ (SD)/ None	Open sea, large water bodies, coastal bays and harbors.	Not expected to occur. There is no suitable habitat on the project area for this species.
Phalacrocorax auritus (rookery site)	Double-crested cormorant	None/ WL/ None	Lakes, rivers, reservoirs, estuaries, ocean; nests in tall trees, rock ledges on cliffs, rugged slopes.	Not expected to occur. There is no suitable habitat on the project area for this species.
Piranga flava (nesting)	Hepatic tanager	None/ WL/ None	Coniferous forests mixed with oak, pinyon-juniper woodland.	Not expected to occur. There is no suitable habitat on the project area for this species.
Piranga rubra (nesting)	Summer tanager	None/ CSC/ None	Nests in riparian woodland; winter habitats include parks and residential areas	Low potential to occur. This species may occur in the area adjacent to the project area.
Plegadis chihi (rookery site)	White-faced ibis	None/ WL/ None	Nests in marsh; winter foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields and estuaries.	Not expected to occur. There is no suitable habitat on the project area for this species.
Polioptila californica californica	Coastal California gnatcatcher	FT, USBC/ CSC/ Covered	Coastal sage scrub, coastal sage scrub-chaparral mix, coastal sage scrub-grassland ecotone, riparian in late summer.	Not expected to occur. There is no suitable habitat surrounding the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Progne subis (nesting)	Purple martin	None/ CSC/ None	Nests in tall sycamores, pines, oak woodlands, coniferous forest; forages over riparian, forest and woodland.	Low potential to occur. This species may forage over the riparian area adjacent to the project area.
Rallus longirostris levipes	Light-footed clapper rail	FE, BCC/ SE, P / None	Coastal saltmarsh.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Riparia riparia (nesting)	Bank swallow	None/ ST/ None	Nests in lowland country with soft banks or bluffs; open country and water during migration.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Sternula antillarum browni (nesting colony)	California least tern	FE, USBC/ SE, P/ None	Nests along the coast from San Francisco Bay south to northern Baja California.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Thalasseus elegans (nesting colony)	Elegant tern	BCC, USBC/ WL/ None	Coastal waters, estuaries, large bays and harbors, mudflats.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Strix occidentalis occidentalis	California spotted owl	USBC, BCC / CSC/ None	Forests and woodlands dominated by hardwoods, oak and oak-conifer woodlands, and conifers at high elevations.	Not expected to occur. Suitable habitat is not present on the project area for this species. Outside of range for species.
Toxostoma lecontei	Le Conte's thrasher	BCC, USBC/ CSC/ None	Open desert wash, creosote scrub, alkali desert scrub, desert succulent scrub.	Not expected to occur. Suitable habitat is not present on the project area for this species. Outside of range for species.
Vireo bellii pusillus (nesting)	Least Bell's vireo	FE, BCC, USBC/ SE/ Covered	Nests in southern willow scrub with dense cover within 1-2 meters of the ground; habitat includes willows, cottonwoods, baccharis, wild blackberry or mesquite on desert areas.	Low potential to occur. There is no suitable habitat on the project area for this species. There is CNDDB occurrence data within 0.5 mile of the project area; and this species could occur adjacent to the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Mammals				
Antrozous pallidus	Pallid bat	None/ CSC/ None	Rocky outcrops, cliffs, and crevices with access to open habitats for foraging.	Not expected to occur. There is no suitable roosting habitat or foraging habitat for this species.
Canis latrans	Coyote	None/ None/ Covered	Almost all habitats and successional stages; frequents open brush, scrub, shrub, and herbaceous habitats; also younger deciduous and conifer forest and woodland.	Moderate potential to occur. There is suitable habitat for this species in the project area.
Chaetodipus californicus femoralis	Dulzura (California) pocket mouse	None/ CSC/ None	Coastal sage scrub, chaparral, riparian-scrub ecotone; more mesic areas.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	None/ CSC/ None	Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams and sandy loams.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Choeronycteris mexicana	Mexican long-tongued bat	None/ CSC/ None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings.	Not expected to occur. There is no suitable habitat for this species in the project area.
Corynorhinus townsendii	Townsend's big-eared bat	None/ CSC/ None	Mesic habitats, gleans from brush or trees or feeds along habitat edges.	Moderate potential to forage over the project area.
Dipodomys merriami collinus	Earthquake Merriam's kangaroo rat	None/ None/ None	Riversidean alluvial fan sage scrub, flood plains, sandy and sandy loam soils.	Not expected to occur. There is no suitable habitat for this species in the project area. Outside of range of species.
Dipodomys merriami parvus	San Bernardino Merriam's kangaroo rat	FE/ CSC/ None	Riversidean alluvial fan sage scrub, flood plains, sandy and sandy loam soils.	Not expected to occur. There is no suitable habitat for this species in the project area. Outside of range of species.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Dipodomys stephensi	Stephens' kangaroo rat	FE/ ST/ None	Open habitat, grassland, sparse coastal sage scrub, sandy loam and loamy soils with low clay content; gentle slopes (<30%).	Not expected to occur. There is no suitable habitat for this species in the project area. Outside of range of species.
Euderma maculatum	Spotted bat	None/ CSC/ None	Rock crevices, riparian forest, woodland, and scrub, ponds, lakes, grasslands.	Low potential to occur. May forage over the adjacent areas.
Eumops perotis californicus	Western mastiff bat	None/ CSC/ None	Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures.	Moderate potential to occur. There is suitable roosting habitat adjacent to the project area. This species may forage in the project area.
Lasiurus blossevillii	Western red bat	None/ CSC/ None	Prefers edges with trees for roosting and open areas for foraging. Roosts in woodlands and forests. Forages over grasslands, shrublands, woodlands, forests, and croplands.	Not expected to occur. There is no suitable habitat for this species in the project area.
Lasiurus xanthinus	Western yellow bat	None/ CSC/ None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland.	Not expected to occur. There is no suitable habitat for this species in the project area.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/ CSC/ None	Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands.	Moderate potential to occur. There is suitable habitat for this species in the project area.
Neotoma lepida intermedia	San Diego desert woodrat	None/ CSC/ Covered	Coastal sage scrub, chaparral, pinyon-juniper woodland with rock outcrops, cactus thickets, dense undergrowth.	Not expected to occur. There is no suitable habitat for this species in the project area.
Nyctinomops femorosaccus	Pocketed free-tailed bat	None/ CSC/ None	Rocky desert areas with high cliffs or rock outcrops.	Not expected to occur. There is no suitable habitat for this species in the project area.
Nyctinomops macrotis	Big free-tailed bat	None/ CSC/ None	Rugged, rocky canyons.	Not expected to occur. There is no suitable habitat for this species in the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Onychomys torridus ramona	Southern grasshopper mouse	None/ CSC/ None	Grassland, sparse coastal sage scrub.	Not expected to occur. There is no suitable habitat for this species in the project area.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/ CSC/ None	Grassland, coastal sage scrub, disturbed habitats; fine, sandy soils.	Not expected to occur. There is no suitable soils on the project area for this species.
Perognathus longimembris pacificus	Pacific pocket mouse	FE/ CSC/ Covered	Grassland, coastal sage scrub with sandy soils; along immediate coast.	Not expected to occur. There is no suitable habitat or soils in or near the project area. There is CNDDB occurrences for this species greater than 0.5 mile of the project area.
Sorex ornatus salicornicus	Southern California salt marsh shrew	None/ CSC/ None	Valley foothill and montane riparian optimal (prefers moist soil); also woodland, chaparral, grassland, and emergent wetland. Nests in wood, shrubs, and burrows.	Not expected to occur. There is no suitable habitat for this species.
Taxidea taxus	American badger	None/ CSC/ None	Dry, open treeless areas, grasslands, coastal sage scrub.	Not expected to occur. There is no suitable habitat surrounding the project area.
Urocyon cinereoargenteus	Gray fox	None/ None/ Covered	Shrublands, brushy and open-canopied forests, interspersed with riparian areas. Dens in cavities, in rocky areas, snags, logs, brush, slash piles, old burrows, and under buildings.	Moderate potential to occur. This species may utilize the project area and surrounding areas.
Invertebrates				
Branchinecta lynchi	Vernal pool fairy shrimp	FT/ None/ None	Vernal pools; cool-water pools with low to moderate dissolved solids.	Not expected to occur. There is no suitable habitat for this species.
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/ None/ Covered	Small, shallow vernal pools, occasionally ditches and road ruts.	Not expected to occur. There is no suitable habitat for this species.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Euphydryas editha quino	Quino checkerspot butterfly	FE/ None/ Covered	Sparsely vegetated hilltops, ridgelines, occasionally rocky outcrops; host plant *Plantago erecta* and nectar plants must be present.	Not expected to occur. There is no suitable habitat for this species. Outside of range of species.
Rhaphiomidas terminatus abdominalis	Delhi sands flower-loving fly	FE/ None/ None	Associated with Delhi sands formation; sparsely vegetated habitat (< 50%) supporting *Eriogonum fasciculatum, Croton californicus, Heterotheca grandiflora*.	Not expected to occur. There is no suitable habitat for this species. Outside of range of species.
Streptocephalus woottoni	Riverside fairy shrimp	FE/ None/ Covered	Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm water pools that have low to moderate dissolved solids.	Not expected to occur. There is no suitable habitat for this species.
Tryonia imitator	Mimic tryonia (California brackishwater snail)	None/ None/ None	Coastal lagoons, estuaries and salt marshes.	Not expected to occur. There is no suitable habitat for this species.
Fish				
Catostomus santaanae	Santa Ana sucker	FT/ CSC/ None	Small, shallow, cool, clear streams less than 7 meters in width and a few centimeters to more than a meter in depth; substrates are generally coarse gravel, rubble and boulder.	Not expected. No suitable habitat on the project area.
Eucyclogobius newberryi	Tidewater goby	FE/ CSC/ None	Low-salinity waters in coastal wetlands.	Not expected to occur. There is no suitable habitat for this species.
Gila orcutti	Arroyo chub	None/ CSC/ None	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths > 40 centimeters; substrates of sand or mud.	Not expected to occur. There is no suitable habitat for this species.
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	None/ CSC/ None	Permanent streams with cool, flowing rocky-bottomed washes, shallow cobble and gravel riffles.	Not expected to occur. There is no suitable habitat for this species.

[1] The federal and state status of species is based on the California Department of Fish and Game's Special Animals list (July 2009) and the Central-Coastal NCCP/HCP (County of Orange 1995).
Federal Designations:

Table 2 (Continued)

BCC	Fish and Wildlife Service: Birds of Conservation Concern
FC	Candidate for federal listing as threatened or endangered
(FD)	Federally delisted; monitored for 5 years
FE	Federally listed as endangered
FT	Federally listed as threatened
MNBMC	Fish and Wildlife Service Migratory Nongame Birds of Management Concern
USBC	United States Bird Conservation Watch List

State Designations:

CSC	California Special Concern Species
P	California Department of Fish and Game Protected and Fully Protected Species
SE	State-listed as endangered
ST	State-listed as threatened

NCCP Designations:

Covered – Covered species (including species with conditional coverage) under Central-Coastal NCCP/HCP

Special-Status Plants

For each species listed in Table 3, a determination was made regarding the status of the species on site or the potential for the species to occur within the study area based on information gathered during the surveys, including the location of the site, habitats present, current site conditions, past and present land use, and a review of known locations based on the CNDDB (CDFG 2010) and Central-Coastal NCCP/HCP (County of Orange 1995). If the known CNDDB or Central-Coastal NCCP/HCP occurrences of a special-status plant species are more than 5 miles from the study area or not with the CNPS nine-quad search, then the species is considered to be outside of the known geographic range of the species (Table 3).

There is CNDDB occurrence data within 0.5 mile of the project area for one CNPS list 1B species: many-stemmed dudleya (*Dudleya multicaulis*) (Figure 4). Suitable habitat for many-stemmed dudleya does not exist in the project area. This species would not be directly affected by the project since there is direct access to the project area. No other special-status plant species area expected to occur in the project area because the proposed project area is a developed area. No special-status plant species were identified during the survey. Because project site consists of a road turn-out, which has been graded, compacted, and covered with gravel, there is little to no vegetation in this area. The area is regularly maintained, and no special-status plant species are expected to occur.

Table 3
Special-Status Plant Species Detected or Potentially Occurring on the Project Site

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Abronia maritima	Red-sand verbena	None/None	4.2	Coastal dunes/ Perennial herb/ February–November	0–328	Not expected to occur. There is no suitable habitat for this species in the project area; no suitable vegetation is present.
Abronia villosa var. *aurita*	Chaparral sand-verbena	None/None/ None	1B.1	Chaparral, coastal scrub; sandy/ annual herb/ January–August	262–5,249	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or sandy soils present. Project site is outside of known geographic and elevation range of species.
Aphanisma blitoides	Aphanisma	None/None/ None	1B.2	Coastal bluff scrub, coastal sage scrub, sandy soils/ annual herb/ April–May	3–1,001	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or sandy soils present.
Artemisia palmeri	San Diego sagewort	None/None/ None	4.2	Chaparral, coastal sage scrub, riparian forest and scrub, sandy soils/ shrub/ July–September	49–3,002	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or sandy soils present. This shrub would have been observed at the time of the survey. Project site is outside of known geographic range of species.
Astragalus brauntonii	Braunton's milk-vetch	FE/None/None	1B.1	Closed-cone conifer forest, chaparral, coastal sage scrub, valley and foothill grassland, recent burns or disturbed areas/ perennial herb/ March–July	13–2,100	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present.
Atriplex coulteri	Coulter's saltbush	None/None/ None	1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland, alkaline or clay soils/ perennial herb/ March–October	10–1,509	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present.
Atriplex pacifica	South Coast saltscale	None/None/ None	1B.2	Coastal bluff scrub, coastal sage scrub, playas/ annual herb/ March–October	0–459	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Atriplex parishii	Parish's brittlescale	None/None/ None	1B.1	Chenopod scrub, playas, vernal pools/ annual herb/ June–October	82–6,234	Not expected to occur. There is no suitable habitat on the project area for this species. Project site is outside of known geographic range of species.
Atriplex serenana var. *davidsonii*	Davidson's saltscale	None/None/ None	1B.2	Coastal bluff scrub, coastal sage scrub, alkaline soils/ annual herb/ April–October	33–656	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or alkaline soils present.
Berberis nevinii	Nevin's barberry	FE/SE/None	1B.1	Chaparral, cismontane woodland, coastal sage scrub, riparian scrub, sandy or gravelly soils/ shrub/ March–April	899–2,707	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This shrub would have been observed at the time of the survey. Project site is outside of known geographic and elevation range of species.
Bergerocactus emoryi	Golden-spined cereus	None/None/ None	2.2	Closed-cone coniferous forest, chaparral, coastal sage scrub, sandy soils/ shrub (stem succulent)/ May–June	10–1,296	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or sandy soils present. Perennial succulent would have been observed at the time of the survey. Project site is outside of known geographic range of species.
Brodiaea filifolia	Thread-leaved brodiaea	FT/SE/None	1B.1	Coastal sage scrub, cismontane woodland, valley and foothill grassland, vernal pools, clays/ perennial herb/ March–June	82–3,999	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic range of species.
Calandrinia breweri	Brewer's calandrinia	None/None	4.2	Disturbed areas in chaparral, northern coastal scrub, and coastal sage scrub/ annual herb/ March–June	0–3,500	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Calochortus catalinae	Catalina mariposa lily	None/None/ NCCP	4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland/ perennial herb/ February–May	49–2,297	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present.
Calochortus plummerae	Plummer's mariposa lily	None/None/ None	1B.2	Chaparral, cismontane woodland, coastal sage scrub, lower montane conifer forest, valley and foothill grassland, granitic soils/ perennial herb/ May–June	328–5,577	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or soils present. Project site is outside of known geographic and elevation range of species.
Calochortus weedii var. *intermedius*	Intermediate mariposa lily	None/None/ NCCP	1B.2	Chaparral, coastal sage scrub, valley and foothill grassland, rocky areas/ perennial herb/ May–July	344–2,805	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or rocky areas present. Project site is outside of known elevation range of species.
Camissonia lewisii	Lewis' evening primrose	None/None	3	Dunes, coastal in coastal sage scrub, valley grasslands, and foothill woodlands/ annual herb/ March–May	0–984	Not expected to occur. There is no suitable habitat on the project area for this species no suitable vegetation is present.
Caulanthus simulans	Payson's jewelflower	None/None/ None	4.2	Chaparral, coastal sage scrub, sandy and granitic soils/ annual herb/ March–June	295–7,218	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or soils present. Project site is outside of known geographic and elevation range of species.
Centromadia [Hemizonia] parryi spp. *australis*	Southern tarplant	None/None/ None	1B.1	Valley and-foothill grassland (vernally mesic), estuary margins, vernal pools/ annual herb/ June–November	0–1,401	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat. Suitable riparian habitat exists adjacent to the project area.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Centromadia [Hemizonia] pungens ssp. *laevis*	Smooth tarplant	None/None/ None	1B.1	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland/ annual herb/ April–September	0–1,575	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat. Suitable riparian habitat exists adjacent to the project area. Project site is outside of known geographic range of species.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/ None	1B.1	Coastal bluff scrub, coastal dunes/ annual herb/ January–August	10–328	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic range of species.
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	FC/SE/None	1B.1	Coastal sage scrub, sandy soils/ annual herb/ April-June	492–4,003	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or soils present. Project site is outside of known elevation range of species.
Chorizanthe parryi var. *parryi*	Parry's spineflower	None/None/ None	3.2	Chaparral, coastal sage scrub, sandy openings/ annual herb/ April–June	902–4,003	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or soils present. Project site is outside of known geographic and elevation range of species.
Comarostaphylis diversifolia ssp. *diversifolia*	Summer holly	None/None/ None	1B.2	Chaparral/ shrub/ April–June	98–1,804	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This shrub would have been observed at the time of the survey.
Cordylanthus maritimus ssp. *maritimus*	Salt marsh bird's-beak	FE/SE/None	1B.2	Coastal dunes, coastal saltwater marshes and swamps/ annual herb/ May–October	0–98	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known elevation range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Cupressus forbesii	Tecate cypress	None/None/ NCCP	1B.1	Closed-cone conifer forest, chaparral/ tree/ NA	837–4,921	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This tree would have been observed at the time of the survey. Project site is outside of known geographic and elevation range of species.
Deinandra paniculata	Paniculate tarplant	None/None	4.2	Coastal scrub, valley and foothill grasslands, and vernal pools; usually mesic/ Annual herb/ April–November	82–3,084	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation, mesic habitat or vernal pools are present.
Dichondra occidentalis	Western dichondra	None/None/ None	4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland/ perennial herb/ March–May	164–1,640	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present.
Dodecahema leptoceras	Slender-horned spineflower	FE/SE/None	1B.1	Chaparral, coastal sage scrub (alluvial fan)/ annual herb/ April–June	656–2,493	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or alluvial fans present. Project site is outside of known geographic and elevation range of species.
Dudleya blochmaniae spp. *blochmaniae*	Blochman's dudleya	None/None/ None	1B.1	Coastal bluff scrub, coastal sage scrub, valley and foothill grassland, rocky, often clay or serpentine soil/ perennial herb/ April–June	16–1,476	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Dudleya cymosa ssp. *ovatifolia*	Santa Monica Mtns. dudleya	FT/None/ NCCP	1B.2	Chaparral, coastal sage scrub, volcanic substrates/ perennial herb/ March–June	492–5,495	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or volcanic substrate present. Project site is outside of known geographic and elevation range of species.
Dudleya multicaulis	Many-stemmed dudleya	None/None/ None	1B.2	Coastal bluff scrub, coastal sage scrub, valley and foothill grassland, rocky, often clay or serpentine soil/ perennial herb/ April–June	49–2,592	Not expected to occur. There is a CNDDB occurrence data within 0.5 mile of the project area. However, there is no suitable habitat on the project area; no suitable vegetation present.
Dudleya stolonifera	Laguna Beach dudleya	FT/ST/NCCP	1B.1	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, rocky areas/ perennial herb/ May–July	33–853	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or rocky areas present.
Dudleya viscida	Sticky dudleya	None/None/ None	1B.2	Coastal bluff scrub, chaparral, coastal sage scrub, rocky areas/ perennial herb/ May–June	33–1,804	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or rocky areas present. Project site is outside of known geographic and elevation range of species.
Eleocharis parvula	Small spikerush	None/None/ None	4.3	Saltmarsh/ perennial herb/ June–September	3–9,908	Not expected to occur. There is no suitable habitat on the project area; no suitable saltmarsh habitat present. Project site is outside of known geographic range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	FE/SE/None	1B.1	Chaparral, coastal sage scrub (alluvial fan)/ perennial herb/ June–August	299–2,001	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or alluvial fans present. Project site is outside of known geographic and elevation range of species.
Euphorbia misera	Cliff spurge	None/None/ None	2.2	Coastal bluff scrub, coastal scrub; rocky/ shrub/ December–August	33–1,640	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or rock areas present. This shrub would have been observed at the time of the survey.
Harpagonella palmeri	Palmer's grapplinghook	None/None/ None	4.2	Chaparral, coastal sage scrub, valley and foothill grassland, clays/ annual herb/ March–April	66–3,133	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present.
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	None/None/ None	1A	Saltwater marsh, freshwater marsh/ perennial herb/ August–October	33–5,495	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat present.
Holocarpha virgata ssp. *elongata*	Graceful tarplant	None/None/ None	4.2	Coastal sage scrub, cismontane woodland, chaparral (?), valley and foothill grassland/ annual herb/ August–November	197–3,609	Not expected to occur. There is no suitable habitat on the project area for this species. Project site is outside of known geographic range of species.
Hordeum intercedens	Vernal barley	None/None/ None	3.2	Valley and foothill grassland (saline flats and depressions), vernal pools/ annual herb/ March–June	16–3,281	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or vernal pools present.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Isocoma menziesii var. *decumbens*	Decumbent goldenbush	None/None/ None	1B.2	Coastal sage scrub (sandy, often disturbed areas)/ shrub/ April–November	33–433	Not expected to occur. This shrub would have been observed at the time of the survey. There is no suitable habitat on the project area; no suitable vegetation or sandy soils present. Project site is outside of known geographic range of species.
Juglans californica	Southern California black walnut	None/None/ None	4.2	Chaparral, cismontane woodland, coastal sage scrub, alluvial areas/ tree/ March–May	164–2,953	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This tree would have been observed at the time of the survey.
Juncus acutus spp. *leopoldii*	Southwestern spiny rush	None/None/ None	4.2	Coastal dunes, meadows and seeps (alkaline), saltwater marsh/ perennial herb/ May–June	10–2,953	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat present. Project site is outside of known geographic range of species.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/ None	1B.1	Saltwater marsh and swamps, playas, vernal pools/ annual herb/ February–June	3–4,003	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat present.
Lepechinia cardiophylla	Heart-leaved pitcher sage	None/None/ NCCP	1B.2	Closed-cone conifer forest, chaparral, cismontane woodland/ shrub/ April–July	1,706–4,495	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This shrub would have been observed at the time of the survey. Project area below elevational range for this species.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/ None	1B.2	Chaparral, coastal sage scrub/ annual herb/ January–July	3–2,904	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Lilium humboldtii ssp. *ocellatum*	Ocellated Humboldt lily	None/None/ None	4.2	Chaparral, cismontane woodland, lower montane conifer forest, openings/ perennial herb/ April–July	98–5,906	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic range of species.
Lycium californicum	California box-thorn	None/None	4.2	Coastal bluff scrub and coastal scrub/ shrub/ (Dec)March–August	0–492	Not expected to occur. There is no suitable habitat for this species; no suitable vegetation is present. This shrub would have been observed during surveys.
Lycium brevipes var. *hassei*	Santa Catalina Island desert-thorn	None/None/ None	1B.1	Coastal bluff scrub, coastal sage scrub/ shrub/ June	33–984	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This shrub would have been observed at the time of the survey. Project site is outside of known geographic range of species.
Machaeranthera juncea	Rush-like bristleweed	None/None/ None	4.3	Chaparral, coastal sage scrub/ perennial herb/ June–October	0–3,280	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic range of species.
Malacothrix saxatilis var. *saxatilis*	Cliff malacothrix	None/None	4.2	Coastal bluff scrub or coastal scrub/ Perennial herb/ March–September	0–656	Not expected to occur. There is no suitable habitat in the project area for this species; not suitable vegetation is present.
Microseris douglasii var. *platycarpha*	Small-flowered microseris	None/None/ None	4.2	Cismontane woodland, coastal sage scrub, valley and foothill grassland, clays/ annual herb/ March–May	49–3,510	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Mimulus clevelandii	Cleveland's bush monkeyflower	None/None/ None	4.2	Chaparral, lower montane conifer forest (often in disturbed areas)/ perennial herb/ May–July	2,674–6,562	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic and elevation range of species.
Mimulus diffusus	Palomar monkeyflower	None/None/ None	4.3	Chaparral, lower montane coniferous forest/ annual herb/ April–June	4,003–6,004	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic and elevation range of species.
Monardella hypoleuca ssp. *lanata*	Felt-leaved monardella	None/None/ None	1B.2	Chaparral, cismontane woodland/ perennial herb/ May–July	984–5,187	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic and elevation range of species.
Monardella macrantha ssp. *hallii*	Hall's monardella	None/None/ None	1B.3	Broad-leaved upland forest, chaparral, cismontane woodland, lower montane conifer forest, valley and foothill grassland/ perennial herb/ June–August	2,395–7,201	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic and elevation range of species.
Mucronea californica	California spineflower	None/None/ None	4.2	Chaparral, cismontane woodland, coastal dunes, coastal sage scrub, valley and foothill grassland, sandy soils/ annual herb/ March–August	0–4,593	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or sandy soils present. Project site is outside of known geographic range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Myosurus minimus ssp. *apus*	Little mousetail	None/None/ None	3.1	Vernal pools (alkaline)/ annual herb/ March–June	66–2,100	Not expected to occur. There is no suitable habitat on the project area; no vernal pools or alkaline soils present. Project site is outside of known geographic range of species.
Nama stenocarpum	mud nama	None/None/ None	2.2	Marsh and swamps, lake margins and riverbanks/ annual-perennial herb/ January–July	16–1,640	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat present.
Navarretia fossalis	Spreading navarretia	FT/None/Non e	1B.1	Chenopod scrub, shallow freshwater marsh and swamps, vernal pools/ annual herb/ April–June	98–4,265	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation, mesic habitat or vernal pools present. Project site is outside of known geographic range of species.
Navarretia prostrata	Prostrate navarretia	None/ None/None	1B.1	Coastal scrub, valley and foothill grassland (alkaline), vernal pools; mesic/ annual herb/ April–July	49–2,297	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation, alkaline soils or vernal pools present Project site is outside of known geographic range of species.
Nemacaulis denudata var. *denudata*	Coast woolly-heads	None/None/ None	1B.2	Coastal dunes, desert dunes, Sonoran Desert scrub/ annual herb/ March–May	0–328	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or dune or desert habitat present.
Nolina cismontana	Chaparral beargrass	None/None/ None	1B.2	Chaparral/ perennial herb/ June–July	459–4,183	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation. Project site is outside of known elevation range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Ophioglossum californicum	California adder's-tongue	None/None/ None	4.2	Chaparral, valley and foothill grassland, vernal pools (margins)/ perennial herb/ December–May	197–1,722	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or vernal pools present. Project site is outside of known geographic range of species.
Orcuttia californica	California Orcutt grass	FE/SE/None	1B.1	Vernal pools/ annual herb/ April–June	49–2,165	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or vernal pools present. Project site is outside of known geographic range of species.
Penstemon californicus	California beardtongue	None/None	1B.2	Chaparral, lower montane coniferous forests, and Pinyon juniper woodlands; sandy/ perennial herb/ May–June (August)	3,839–7,546	Not expected to occur. There is no suitable habitat for this species in the project area; no suitable vegetation or soils present. The project area is below the elevational range for this species. Project site is outside of known elevation range of species.
Phacelia nashiana	Charlotte's phacelia	None/None/ None	1B.2	Pinyon-juniper woodland, Mojavean Desert scrub, Joshua tree woodland, granitic soils/ annual herb/ March–June	1,969–7,218	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or granitic soils present. Project site is outside of known geographic and elevation range of species.
Phacelia suaveolens ssp. *keckii*	Santiago Peak phacelia	None/None	1B.3	Closed-cone conifer forest, chaparral/ annual herb/ May–June	1,788–5,249	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or granitic soils present. Project site is outside of known geographic and elevation range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Polygala cornuta var. *fishiae*	Fish's milkwort	None/None	4.3	Chaparral, cismontane woodland, riparian woodland/ shrub/ May–August	328–3,281	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat. Suitable riparian habitat exists adjacent to the project area. Project site is outside of known elevation range of species.
Quercus dumosa	Nuttall's scrub oak	None/None/ NCCP	1B.1	Chaparral, coastal sage scrub, sandy and clay loam soils/ shrub/ February–March	49–1,312	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This shrub would have been observed at the time of the survey.
Quercus engelmannii	Engelmann oak	None/None/ None	4.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland/ tree/ April–May	164–4,265	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This tree would have been observed at the time of the survey. Project site is outside of known geographic range of species.
Romneya coulteri	Coulter's matilija poppy	None/None/ NCCP	4.2	Chaparral, coastal sage scrub, often in burned areas/ perennial herb/ May–July	66–3,937	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This species would have been observed at the time of the survey.
Rorippa gambellii	Gambel's water cress	FE/ST/None	1B.1	Marsh and swamps (freshwater and brackish)/ perennial herb/ April–June	16–1,082	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat present. Project site is outside of known geographic range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Sagittaria sanfordii	Sanford's arrowhead	None/None/ None	1B.2	Shallow freshwater marshes and swamps/ perennial herb/ May–August	0–2,133	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat present. Project site is outside of known geographic range of species.
Satureja chandleri	San Miguel savory	None/None/ None	1B.2	Chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland/ perennial herb/ March–May	394–3,527	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or mesic habitat present. Suitable habitat exists adjacent to the project area but not on the project area. Project site is outside of known geographic and elevation range of species.
Senecio aphanactis	Rayless ragwort	None/None/ None	2.2	Cismontane woodland, coastal sage scrub, alkaline soils/ annual herb/ January–April	49–2,625	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation or alkaline soils present.
Sidalcea neomexicana	Salt spring checkerbloom	None/None/ None	2.2	Chaparral, coastal sage scrub, lower montane conifer forest, Mojavean Desert scrub, playas, alkaline-mesic areas/ perennial herb/ March–June	49–5,020	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation, mesic habitat or alkaline soils present. Project site is outside of known geographic range of species.
Suaeda californica	California seablite	FE/None	1B.1	Coastal salt-marsh, and coastal wetlands, riparian areas/ shrub/ July–October	0–49	Not expected to occur. There is no suitable habitat on the project area and this shrub would have been observed during on-site surveys.
Suaeda esteroa	Estuary seablite	None/None/ None	1B.2	Saltmarsh/ perennial herb/ July–October	0–16	Not expected to occur. There is no suitable habitat on the project area; no saltmarsh present.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status On Site or Potential to Occur
Tetracoccus dioicus	Parry's tetracoccus	None/None/ None	1B.2	Chaparral, coastal sage scrub/ shrub/ April–May	541–3,281	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This shrub would have been observed at the time of the survey. Project site is outside of known geographic and elevation range of species.
Verbesina dissita	Crownbeard	FT/ST/None	1B.1	Maritime chaparral, coastal sage scrub/ perennial herb/ April–July	148–673	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present.
Viguiera laciniata	San Diego County viguiera	None/None/ None	4.2	Chaparral, coastal sage scrub/ shrub/ February–June	197–2,461	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. This shrub would have been observed at the time of the survey. Project site is outside of known geographic range of species.

Legend
FC: Candidate for federal listing as threatened or endangered
FE: Federally listed as endangered
FT: Federally listed as threatened
NCCP: Covered Species under Central-Coastal NCCP/HCP
PFE: Proposed for federal listing as endangered
SCE: State candidate for listing as endangered
SE: State-listed as endangered
SR: State rare

RECOMMENDATIONS

There will be no direct impacts to riparian or other sensitive natural communities or jurisdictional waters of the U.S., including wetlands. There will be no direct impacts to areas designated as reserve in the Central-Coastal NCCP/HCP area. No special-status wildlife or plant species are expected to be directly impacted during the project. However, there may be indirect construction-related impacts, such as noise and dust.

Some bat species may forage over the project area; however, these species are not expected to roost, den, or take refuge on site and are not expected to be impacted by the project. Project activities will take place during the daytime.

Two species that are covered under the Central-Coastal NCCP/HCP area may occur in the project area: gray fox (*Urocyon cinereoargenteus*) and coyote (*Canis latrans*). These species are not expected to be impacted by project activities.

The following measures are recommended to minimize any effects of construction activities on biological resources:

- All construction activities will be limited to the defined project area in order to avoid impacts to the adjacent riparian area.
- To avoid impacts to nesting birds, construction activities should be conducted between September 16 and March 14. If construction occurs inside the peak nesting season (between March 15 and September 15), a preconstruction survey will be required prior to construction activities by a qualified biologist. This survey should determine if the federally listed endangered least Bell's vireo or southwestern willow flycatcher (*Empidonax traillii extimus*) are present. Based on the results of the survey, the following measures may be necessary:
    - Postpone construction until they are no longer nesting
    - Install sound barriers
    - Coordinate with the U.S. Fish and Wildlife Service regarding other measures.

Please do not hesitate to contact Senior Wildlife Biologist Brock Ortega at 760.942.5147 (bortega@dudek.com) with any questions or concerns regarding the contents of this letter.

Sincerely,

_____

Traci A. Caddy
Wildlife Biologist

REFERENCES CITED

Baker, R.J., L.C. Bradley, R.D. Bradley, J.W. Dragoo, M.D. Engstrom, R.F. Hoffmann, C.A. Jones, F. Reid, D.W. Rice, and C. Jones. 2003. *Revised Checklist of North American Mammals North of Mexico, 2003*. Occasional Papers, no. 229:1–24. Lubbock, Texas: Museum of Texas Tech University. December 1, 2003.

CDFG (California Department of Fish and Game). 2006. "Special Animals." California Natural Diversity Database. Sacramento, California: CDFG. February 2006.

CDFG. 2010. California Natural Diversity Database. Sacramento, California: CDFG, Natural Heritage Division.

CNPS (California Native Plant Society). 2010. Inventory of Rare and Endangered Plants (v7-09d). Sacramento, California: California Native Plant Society. Accessed February 18, 2010, at: http://www.cnps.org/inventory

County of Orange, Environmental Management Agency. 1995. *Central and Coastal Subregion Natural Community Conservation Plan and Habitat Conservation Plan. Parts I & II NCCP/HCP; Part III Joint Programmatic EIR/EIS.* Prepared by R. J. Meade Consulting, Inc. December 7, 1995.

DigitalGlobe. 2008. Aerial map provided by DigitalGlobe.

Gray, J. and Bramlet, D. 1992. Habitat Classification System, Natural Resources Geographic Information System (GIS) Project. County of Orange Environmental Management Agency.

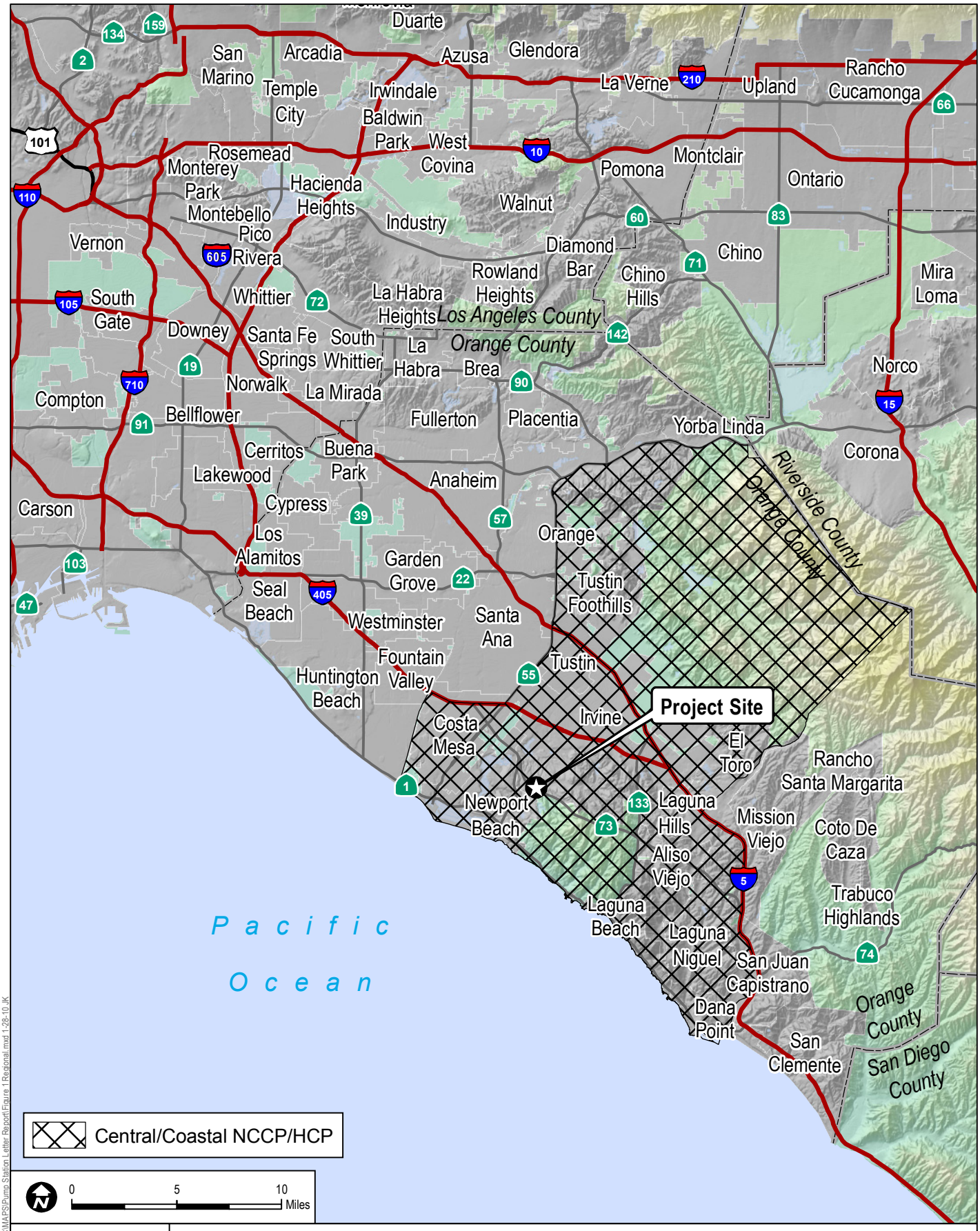
Hickman, J.C., ed. 1996. *The Jepson Manual: Higher Plants of California*. Third printing with corrections. Berkeley and Los Angeles, California: University of California Press.

Sibley, D.A. 2001. *The Sibley Guide to Birds.* New York, New York: Alfred A. Knopf, Inc.

Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians*. The Peterson Field Guide series, 3rd ed. New York, New York: Houghton Mifflin.

USDA (U.S. Department of Agriculture). 1978. *Soil Survey of Orange County and Western Riverside County, California*. USDA Soil Conservation Service and Forest Service and the University of California Agricultural Experiment Station. September 1978.

USGS (U.S. Geological Survey). No date. 7.5 Minute Map Series Tustin and Laguna Beach Quadrangles.



DUDEK

6483-01

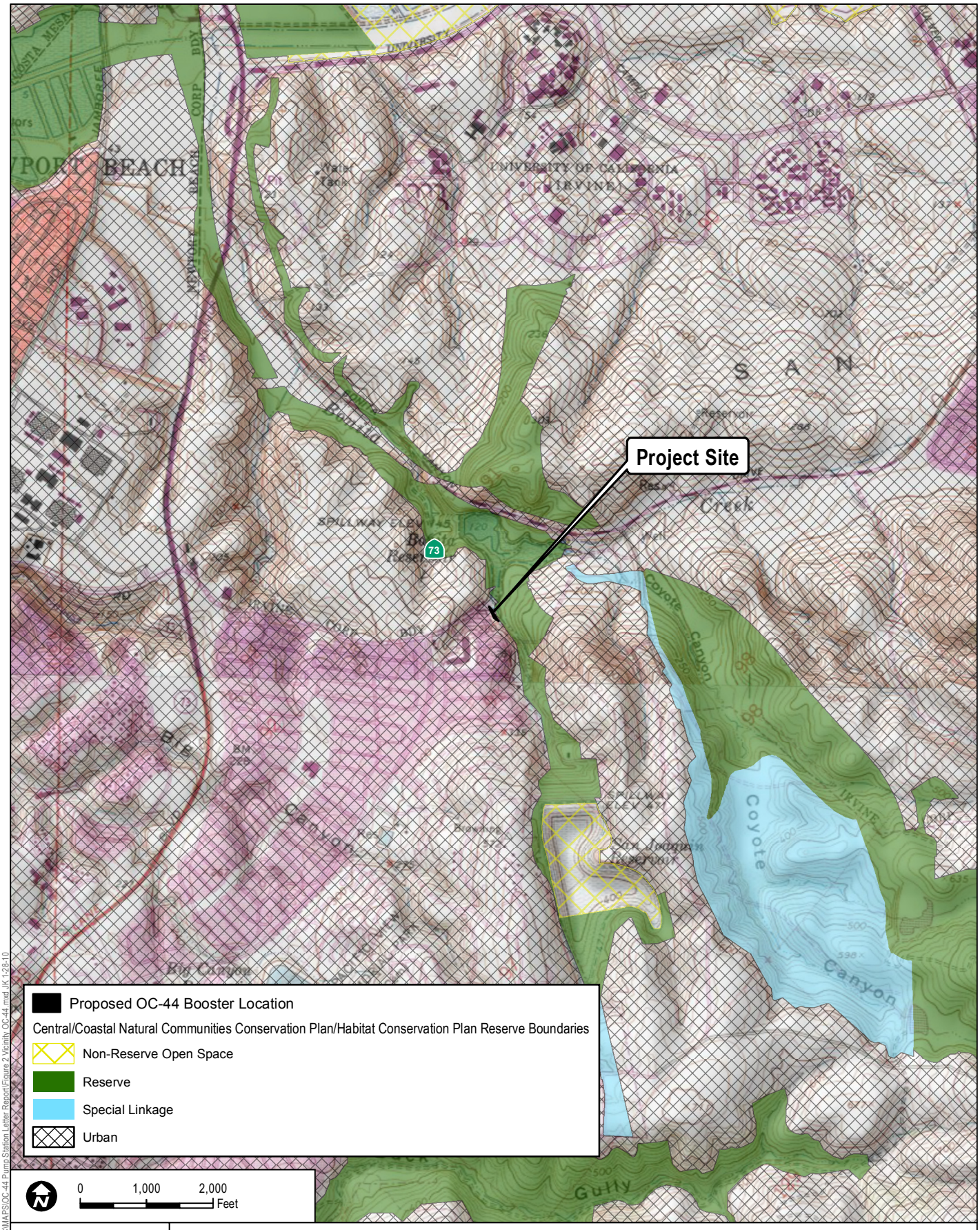
FEBRUARY 2010

FIGURE 1

Regional Map

Poseidon Huntington Beach Seawater Desalination Plant
Underground Booster Pump Station Project Site Option 2

Z:\Projects\6483011\MAPD OC\MAPS\Pump Station Letter Report\Figure 1 Regional.mxd 1-28-10 JK



SOURCE: County of Orange, Environmental Management Agency 1995; USGS 7.5 Minute Map Series Tustin and Laguna Beach Quadrangles.

FIGURE 2
Vicinity Map

DUDEK

6483-01
FEBRUARY 2010

Poseidon Huntington Beach Seawater Desalination Plant
Underground Booster Pump Station Project Site Option 2

Z:\Projects\6483011\MAPDOC\MAPS\OC-44 Pump Station Letter Report\Figure 2 Vicinity OC-44.mxd JK 1:28:10

Z:\Projects\6483011\MAPD\OC\MAPS\OC-44 Pump Station Letter Report\Figure 3 Veg OC-44.mxd 2-2-10 JK

DUDEK

6483-01

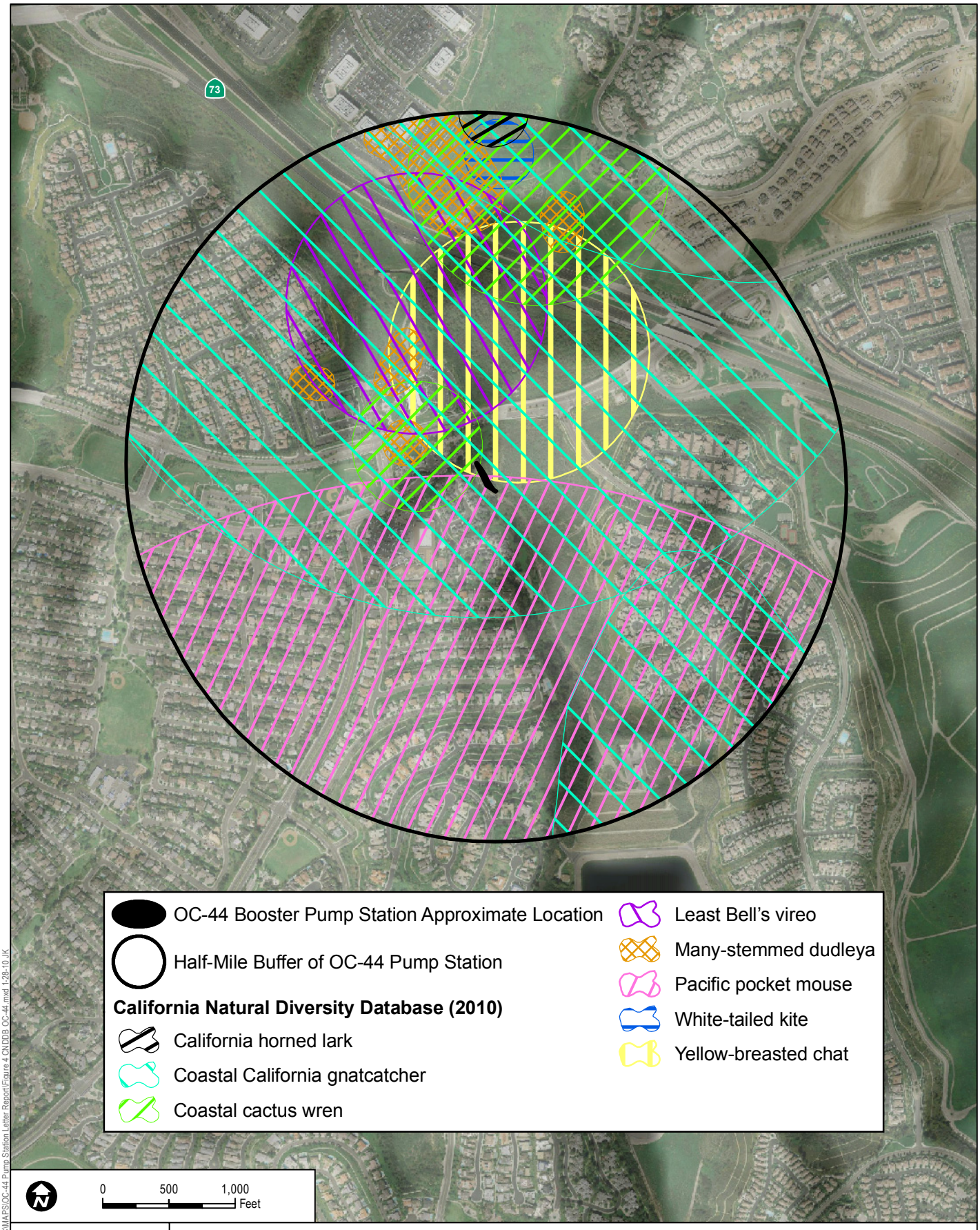
FEBRUARY 2010

SOURCE: DIGITALGLOBE 2008.

FIGURE 3

OC-44 Booster Pump Station Vegetation Map

Poseidon Huntington Beach Seawater Desalination Plant
Underground Booster Pump Station Project Site Option 2



Z:\Projects\6483011\MAPD\OC\MAPS\OC-44 Pump Station Letter Report\Figure 4 CNDDB OC-44.mxd 1-28-10 JK

DUDEK

6483-01

FEBRUARY 2010

SOURCE: CDFG 2010; DIGITALGLOBE 2008.

FIGURE 4

California Natural Diversity Database Special-Status Species Map

Poseidon Huntington Beach Seawater Desalination Plant
Underground Booster Pump Station Project Site Option 2

DUDEK

MAIN OFFICE
605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 T 800.450.1818 F 760.632.0164

February 23, 2010 6483-01

Josie McKinley
Director – Project Development
Poseidon Resources
17011 Beach Boulevard, Suite 910
Huntington Beach, California 92647

Subject: ***Results of the Biological Survey for Option 3 for the Location of the OC-44 Underground Booster Pump Station Project Site, Newport Beach, Orange County, California***

Dear Ms. McKinley:

This report presents the findings of the biological survey conducted for the Option 3–OC-44 Underground Booster Pump Station Project Site located in Newport Beach, Orange County, California (Figure 1). Dudek biologist Traci Caddy conducted a general plant and wildlife survey on January 18, 2010, in order to evaluate impacts associated with the Huntington Beach Seawater Desalination Plant underground booster pump station. This report describes the results of biological surveys, and discusses survey methods, vegetation communities, and special-status biological resources present or potentially present within the study area.

PROJECT LOCATION

The project area is located on the U.S. Geological Survey (USGS) Tustin and Laguna Beach 7.5-minute quadrangle map. The project area is 248 feet in elevation and is located alongside an access road and Chambord Road (Figure 2). Adjacent land uses include residential to the south, Chambord Road on the east, the access road and open space on the north, and open space to the west (Figure 3).

The County of Orange, in conjunction with state and federal resource agencies, local jurisdictions, utility companies, the Transportation Corridor Agencies, and major private landowners, approved the Natural Communities Conservation Planning Program/Habitat Conservation Plan (NCCP/HCP) for the Central/Coastal Subregion on July 10, 1996, through the execution of the NCCP/HCP Implementation Agreement (County of Orange 1995a). The project site is in the Central/Coastal NCCP/HCP area (Figure 1). The 0.04 acre in the very western edge of the project site lies within the NCCP/HCP Reserve; however, this is likely a geographic information system registration error, and the NCCP/HCP Reserve boundary likely starts at the

eastern edge of the project area for Option 3. For purposes of this letter report, it is assumed that the Reserve would not be impacted by the proposed project. It should be noted however, that according to the Central/Coastal NCCP/HCP, necessary public and quasi-public infrastructure are considered permitted uses within the NCCP/HCP Reserve System. The narrow western edge of the project area that is within the NCCP/HCP is not a sensitive habitat but part of a paved access road, and is a permitted use within the NCCP/HCP Reserve System.

METHODS

On January 18, 2010, from 11:15 a.m. to 1:15 p.m., Dudek biologist Traci Caddy conducted a general plant and wildlife survey on the project area. Ms. Caddy surveyed the project location and a 100-foot buffer from the boundaries of the project location for biological resources and potential constraints (Figure 3). Weather conditions included 100% cloud cover, winds ranging from 5 to 10 miles per hour, and temperatures ranging from 50°F to 55°F. Survey conditions were suitable for determining potential biological constraints and observing wildlife species. The area was methodically surveyed, providing 100% visual coverage, and potential constraints (e.g., special-status species, wetlands, etc.) were identified and inventoried.

Plants were identified using taxonomic keys in Hickman (1996). Vegetation types were classified based on Gray and Bramlet (1992). Taxonomy and nomenclature for wildlife generally follows Stebbins (2003) for amphibians and reptiles, Sibley (2001) for birds, and Baker et al. (2003) for mammals.

While a formal delineation of waters of the U.S., including wetlands, was not conducted, the potential for these resources to occur on site was evaluated.

Prior to conducting the field investigation, a review of the existing biological resources and species within the vicinity of the project site was conducted using the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2010) and the California Department of Fish and Game's (CDFG) California Natural Diversity Database (CNDDB) (CDFG 2010). Specifically, Dudek reviewed the online version of the CNPS Inventory of Rare and Endangered Plants (CNPS 2010) and conducted a CNPS nine-quad search. Dudek conducted the search for the USGS Tustin and Laguna Beach 7.5-minute quadrangles. Soils were reviewed according to the *Soil Survey of Orange County and Western Riverside County, California* (USDA 1978). The purpose of this review was to determine if special-status plant and wildlife species are known to occur within the project area or in the nearby vicinity of the project area.

SURVEY LIMITATIONS

The surveys were conducted during the winter season. Most of the perennial plant species that could occur in the area were detectable. Due to the timing of the surveys, annual and cryptic perennials may not have been detectable. Conditions were suitable for detection of wildlife species (i.e., 100% cloud cover, 50°F to 55°F temperatures, and calm winds) as well as detection of winter migratory birds. However, some breeding birds, nocturnal mammals, and most reptiles would not have been detectable at the time of the survey due to general weather, temperature, temporal, or seasonal constraints.

RESULTS

Study Area Description

The 0.54-acre potential pump station location consists of mostly non-native annual grasslands with fringes of developed and ornamental coverages. Access to the project area will be from Chambord Road. Topography on the 0.54-acre site is relatively level, and elevations range from approximately 242 to 248 feet above mean sea level. The site appears to be a revegetation site on cut and fill materials, and is irrigated and regularly maintained. This does not appear to be associated with a mitigation-required habitat restoration area, but instead a habitat buffer planting.

Soils

According to the *Soil Survey of Orange County and Western Part of Riverside County, California* (USDA 1978), the project site supports one soil type: Alo clay, 9% to 15% slopes, which consists of moderately deep, well-drained soils. They formed in material weathered from shale or sandstone on mountains. Alo soils have slopes of 2% to 75%. The mean annual precipitation is about 17 inches, and the mean annual temperature is about 61°F.

Vegetation Communities

Based on species composition and general physiognomy, three communities were identified in the project area. A detailed description is provided below, the acreage is provided in Table 1, and a map depicting its location on site is provided in Figure 3. Figure 3 also shows the vegetation communities that are adjacent to the project site (i.e., within 100 feet of the project site).

Table 1
Acreages of Vegetation Communities and Land Covers

Vegetation Community/Land Cover	Acre(s)
Ornamental	0.15
Non-native annual grassland	0.35
Developed	0.04
Total	**0.54**

Developed

Developed land describes areas occupied by structures, pavement, or other impermeable surfaces that cannot support vegetation, areas that have previously been graded, or areas containing ornamental landscaping. On site, developed land includes paved road and gravel or cement covered areas.

Ornamental

Ornamental cover consists of introduced plantings of exotic species as landscaping. On site, ornamental vegetation consists of irrigated landscaping and planted pine species (*Pinus* ssp.).

Non-Native Annual Grassland

Non-native annual grassland is characterized by weedy, introduced annuals, primarily grasses, including wild oat (*Avena* spp.), bromes (*Bromus diandrus, B. madritensis, B. hordeaceus*), black mustard (*Brassica nigra*), filaree (*Erodium botrys* and *E. cicutarium*), and Russian-thistle (*Salsola tragus*). It may occur where disturbance by maintenance (mowing, scraping, disking, spraying, etc.), grazing, repetitive fire, agriculture, or other mechanical disruption has altered soils and removed native seed sources from areas formerly supporting native vegetation. Annual grassland may support sensitive plant and animal species and provide valuable foraging habitat for raptors (birds of prey). While other native species occur as a result of the revegetation effort, they constitute less than 5% of the cover.

Jurisdictional Waters of the U.S.

There is no potential for jurisdictional waters of the U.S. to occur on site. Therefore, a formal wetlands delineation is not required

Faunal Diversity

Six bird species were detected within the project area during surveys: Anna's hummingbird (*Calypte anna*), California towhee (*Pipilo crissalis*), white-crowned sparrow (*Zonotrichia*

leucophrys), house finch (*Carpodacus mexicanus*), black phoebe (*Sayornis nigricans*), and Bewick's wren (*Thryomanes bewickii*).

Floral Diversity

A total of 10 plant species were detected within the project study area; 7 native species and 3 non-native species. Plant species observed on the project site include gum trees (*Eucalyptus* sp.), mulefat (*Baccharis salicifolia*), coyote bush (*Baccharis pilularis*), California sagebrush (*Artemisia californica*), pine, California buckwheat (*Eriogonum fasciculatum*), wild oat, brome, prickly pear (*Opuntia* sp.), and California encelia (*Encelia californica*).

Special-Status Wildlife

Information and data on special-status wildlife species distribution within the study area and surrounding area were compiled from the Central/Coastal Subregion NCCP/HCP (County of Orange 1995b) and CNDDB (CDFG 2010). Sensitive wildlife species that have been reported within 0.5 mile of the project area based on the CNDDB results are shown in Figure 4.

Table 2 lists special-status wildlife species that are Covered Species under the Central/Coastal Subregion NCCP/ HCP (County of Orange 1995b), or that are known to occur in the vicinity of the study area (CDFG 2010). For each species listed, a determination is made regarding the potential use of the study area based on information gathered during the biological surveys, known habitat preferences, and knowledge of their relative distributions in the area.

Several special-status wildlife species have been reported in the vicinity of the project site based on the results CNDDB results (Figure 4). The following federally and/or state-listed endangered or threatened have CNDDB occurrences within 0.5 mile of the project area: least Bell's vireo (*Vireo bellii pusillus*), California gnatcatcher (*Polioptila californica)*, and Pacific pocket mouse (*Perognathus longimembris pacificus*) (Figure 4). Suitable sage scrub habitat for California gnatcatcher exists to the west and south of the project area, but does not occur in the project area. If work were to occur during the gnatcatcher breeding season (i.e., February 15 through August 30), then focused surveys in adjacent areas would be needed to ensure that nesting birds were not disturbed or sound barriers would need to be installed to maintain a mean equivalent sound pressure level of 60 or less decibels adjusted.

Least Bell's vireo is not expected to occur due to lack of suitable habitat for this species within the vicinity of the project area. Surveys for this species are not necessary because the species is not expected to occur on the immediate project area.

Pacific pocket mouse is not expected to occur due to a lack of suitable habitat or soils. Therefore, focused trapping studies are not necessary.

The following special-status species have CNDDB occurrences within 0.5 mile of the project area: orange-throated whiptail (*Aspidoscelis hyperthyra*), coast horned lizard (*Phrynosoma coronatum blainvillii*), yellow-breasted chat (*Icteria virens*), coastal cactus wren (*Campylorhynchus brunneicapillus*), and white-tailed kite (*Elanus leucurus*). While planted cactus occurs on the project site, this does not yet provide the structure needed to support cactus wren. Therefore, suitable cactus wren habitat does not occur on site. Orange-throated whiptail, coast horned lizard, and coastal cactus wren have potential to occur on the project area. Yellow-breasted chat and white-tailed kite are not expected to occur within the vicinity of the project area due to lack of suitable habitat for these species in the project area. Focused surveys are not required for any of these species.

Table 2
Sensitive Wildlife Species Detected or Potentially Occurring In Project Area

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Amphibians				
Aneides lugubris	Arboreal Salamander	None/ None/ Covered	Chaparral in Southern California; valley-foothill hardwood, valley-foothill hardwood-conifer, mixed conifer habitats, Douglas fir and redwood elsewhere.	Not expected to occur. There is no suitable habitat on the project area for this species.
Batrachoseps nigriventris	Black-bellied slender salamander	None/ None/ Covered	Swales and drainages in open oak, mixed conifer forests, and mixed chaparral with abundant rocks, litter, or woody debris.	Not expected to occur. There is no suitable habitat on the project area for this species.
Anaxyrus californicus	Arroyo toad	FE/ CSC/ Covered	Stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Ensatina klauberi	Large-blotched salamander	None/ CSC/ None	Oak woodland, chaparral, coastal sage scrub, coastal dunes, conifer forest.	Low potential to occur. There is no suitable micro habitat on the project area for this species.
Rana draytonii	California red-legged frog	FT/ CSC/ None	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby or emergent vegetation associated with deep, still, or slow-moving water; uses adjacent uplands.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.
Rana muscosa	Sierra Madre yellow-legged frog	FE / CSC/ None	Meadow streams, isolated pools, lake borders, rocky stream courses within ponderosa pine, montane hardwood-conifer, and montane riparian habitat types.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.
Spea [=Scaphiopus] hammondi	Western spadefoot	None/ CSC/ Covered	Most common in grasslands, coastal sage scrub near rain pools or vernal pools; riparian habitat.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.
Taricha torosa torosa	Coast Range newt	None/ CSC/ None	Coastal drainages; lives in terrestrial habitats and will migrate over 1 kilometer to ponds, reservoirs, and slow-moving streams.	Not expected to occur. There is no suitable habitat on the project area for this species. This species is not known to occur in the area.
Reptiles				

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Actinemys [=Emys] marmorata pallida	Southwestern pond turtle	None/ CSC/ None	Slow-moving permanent or intermittent streams, ponds, small lakes, reservoirs with emergent basking sites; adjacent uplands used during winter.	Not expected to occur. There is no suitable habitat on the project area for this species, but not on the project area. There is CNDDB occurrence data for this species near the project area.
Anniella pulchra pulchra	Silvery legless lizard	None/ CSC/ None	Loose soils (sand, loam, humus) in coastal dune, coastal sage scrub, woodlands, and riparian habitats.	Low potential to occur. There is suitable habitat adjacent to the project area for this species, but not on the project site.
Arizona elegans occidentalis	California glossy snake	None/ None/ Covered	Arid scrub, rocky washes, grasslands, and chaparral.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Aspidoscelis hyperythra [=Cnemidophorus hyperythrus]	Orange-throated whiptail	None/ CSC/ Covered	Coastal sage scrub, chaparral, grassland, juniper and oak woodland.	Moderate potential to occur. Suitable habitat exists on and around the project area.
Aspidoscelis tigris stejnegeri [=Cnemidophorus tigris multiscutatus]	Coastal western whiptail	None/ None/ Covered	Coastal sage scrub, chaparral.	Moderate potential to occur. There is suitable habitat in the project area.
Charina [=Lichanura] trivirgata roseofusca	Coastal rosy boa	None/ None/ Covered	Rocky chaparral, coastal sage scrub, oak woodlands, desert and semi-desert scrub.	Low potential to occur. There is no suitable microhabitat in the project area.
Crotalus ruber ruber	Northern red-diamond rattlesnake	None/ CSC/ Covered	Variety of shrub habitats where there is heavy brush, large rocks, or boulders.	Low potential to occur based on habitats present and surrounding areas.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Diadophis punctatus modestus	San Bernardino ringneck snake	None/ None/ Covered	Open, rocky and somewhat moist areas near intermittent streams: grasslands, sage scrub.	Low potential to occur. There is no suitable habitat in the project area.
Eumeces skiltonianus interparietalis	Coronado skink	None/ CSC/ Covered	Grassland, riparian and oak woodland; found in litter, rotting logs, under flat stones	Low potential to occur. There is no suitable microhabitat in the project area.
Lampropeltis zonata (parvirubra) (San Bernardino population)	California mountain kingsnake (San Bernardino population)	None/ CSC/ None	Valley-foothill hardwood, hardwood-conifer, chaparral, coniferous forest, wet meadow.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Lampropeltis zonata (pulchra) (San Diego population)	California mountain kingsnake (San Diego population)	None/ CSC/ None	Valley-foothill hardwood, hardwood-conifer, chaparral, coniferous forest, wet meadow.	Low potential to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Phrynosoma coronatum (*blainvillei* population)	Coast (San Diego) horned lizard	None/ CSC/ Covered	Coastal sage scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest.	Moderate potential to occur. Suitable habitat exists on and around the project area.
Masticophis flagellum piceus	Red coachwhip	None/ None/ None	Open areas of desert, grassland, scrub, and sagebrush. Rocky and sandy.	Low potential to occur. There is no suitable habitat or soil in the project area. This species is not known to occur in the area.
Salvadora hexalepis virgultea	Coast patch-nosed snake	None/ CSC/ None	Chaparral, washes, sandy flats, rocky areas.	Low potential to occur. There is no suitable habitat or soil in the project area. This species is not known to occur in the area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Thamnophis hammondii	Two-striped garter snake	None/ CSC/ None	Marshes, meadows, sloughs, ponds, slow-moving water courses.	Not expected to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Thamnophis sirtalis ssp.	South Coast garter snake	None/ CSC/ None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools.	Not expected to occur. There is no suitable habitat in the project area. This species is not known to occur in the area.
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/ WL/ None	Riparian and oak woodlands, montane canyons.	Moderate potential to occur but not nest in the area. This species may occur in the ornamental vegetation (pines) within the project area.
Accipiter striatus (nesting)	Sharp-shinned hawk	None/ WL/ Covered	Nests in coniferous forests, ponderosa pine, black oak, riparian deciduous, mixed conifer, Jeffrey pine; winters in lowland woodlands and other habitats.	Moderate potential to forage in the area in winter. This species may occur in the ornamental vegetation (pines) within the project area, but does not nest on the coastal slope in Southern California.
Agelaius tricolor	Tricolored blackbird	BCC, USBC/ CSC/ None	Nests near freshwater, emergent wetland with cattails or tules; forages in grasslands, woodland, agriculture.	Not expected to occur. There is no suitable habitat surrounding the project area.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/ WL/ Covered	Grass-covered hillsides, coastal sage scrub, chaparral with boulders and outcrops.	Low potential to occur on site based on habitat present.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Ammodramus savannarum	Grasshopper sparrow	None/ CSC/ None	Open grasslands and prairies with patches of bare ground.	Low potential to occur based on habitats present and surrounding areas.
Amphispiza belli belli	Bell's sage sparrow	BCC/ WL/ None	Coastal sage scrub and dry chaparral along coastal lowlands and inland valleys.	Low potential to occur on site based on habitat present.
Aquila chrysaetos (nesting and nonbreeding/wintering)	Golden eagle	BCC/ P, WL/ Covered	Open country, especially hilly and mountainous regions; grassland, coastal sage scrub, chaparral, oak savannas, open coniferous forest.	Low potential to occur. There is no suitable habitat on the project area for this species.
Asio flammeus	Short-eared owl	BCC/ CSC/ None	Grassland, prairies, dunes, meadows, irrigated lands, saline and freshwater emergent wetlands.	Low potential to occur. There is no suitable habitat on the project area for this species.
Asio otus	Long-eared owl	None/ CSC/ None	Riparian, live oak thickets, other dense stands of trees, edges of coniferous forest.	Low potential to occur. There is no suitable habitat on the project area for this species.
Athene cunicularia (burrow sites & some wintering sites)	Burrowing owl	None/ CSC/ None	Grassland, lowland scrub, agriculture, coastal dunes and other artificial open areas.	Not expected to occur. There is no suitable habitat on the project area for this species.
Buteo lagopus	Rough-legged hawk	None/ None/ Covered	Does not breed in California. Occurs regularly at Southern California lakes. Frequents open areas near riparian or other wooded habitats.	Low potential to occur. There is no suitable habitat on the project area for this species.
Buteo lineatus	Red-shouldered hawk	None/ None/ Covered	Nests in dense riparian areas, especially with adjacent edges, swamps, marshes, and wet meadows for hunting.	Moderate potential to occur, but not nest. This species may occur in the ornamental vegetation (pines) within the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Buteo regalis (Nonbreeding/wintering)	Ferruginous hawk	BCC/ WL/ None	Open, dry country, grasslands, open fields, agriculture.	Low potential to occur. There is no suitable habitat on the project area for this species.
Buteo swainsoni (nesting)	Swainson's hawk	BCC / ST/ None	Open grassland, shrublands, croplands.	Low potential to occur. There is no suitable habitat on the project area for this species.
Campylorhynchus brunneicapillus sandiegensis (San Diego & Orange Counties only)	Coastal cactus wren	BCC/ CSC/ Covered	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub.	Low potential to occur on site. No wrens or their nests were observed on site. There is CNDDB occurrence data for this species within 0.5 mile of the project area, but suitable habitat does not exist on site.
Charadrius alexandrinus nivosus (nesting)	Western snowy plover	FT, BCC, USBC/ CSC/ None	Nests primarily on coastal beaches, in flat open areas, with sandy or saline substrates; less commonly in salt pans, dredged spoil disposal sites, dry salt ponds and levees.	Not expected to occur. This species is not known to occur near the project area. There is no suitable habitat for this species in the project area.
Charadrius montanus (nonbreeding/wintering)	Mountain plover	BCC, USBC/ CSC/ None	Nests in open, shortgrass prairies or grasslands; winters in shortgrass plains, plowed fields, open sagebrush, and sandy deserts.	Not expected to occur. This species is not known to occur near the project area. There is no suitable habitat for this species in the project area.
Chlidonias niger (nesting colony)	Black tern	None/ CSC/ None	Freshwater lakes, marshes, ponds, coastal lagoons.	Not expected to occur. There is no suitable habitat for this species in the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Circus cyaneus (nesting)	Northern harrier	None/ CSC/ Covered	Open wetlands (nesting), pasture, old fields, dry uplands, grasslands, rangelands, coastal sage scrub.	Low potential to occur. There is no suitable nesting habitat for this species in the project area.
Coccyzus americanus occidentalis (nesting)	Western yellow-billed cuckoo	FC, BCC/ SE/ None	Dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. There is no suitable habitat for this species in the project area.
Cypseloides niger (nesting)	Black swift	BCC, USBC/ CSC/ None	Nests in moist crevices or caves on sea cliffs or near waterfalls in deep canyons; forages over many habitats.	Not expected to occur. There is no suitable nesting habitat for this species in the project area.
Dendroica petechia brewsteri (nesting)	Yellow warbler	None/ CSC/ None	Nests in lowland and foothill riparian woodlands dominated by cottonwoods, alders and willows; winters in a variety of habitats.	Low potential to occur based on habitats present and surrounding areas.
Elanus leucurus (nesting)	White-tailed kite	None/ P/ None	Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian.	Low potential to occur. There is CNDDB occurrence data within 0.5 mile of the project area; however, suitable habitat does not occur on the project area or in the immediate vicinity.
Empidonax traillii extimus (nesting)	Southwestern willow flycatcher	FE, USBC/ SE/ Covered	Riparian woodlands along streams and rivers with mature, dense stands of willows or alders; may nest in thickets dominated by tamarisk.	Not expected to occur. There is no suitable habitat on the project area for this species.
Eremophila alpestris actia	California horned lark	None/ WL/ None	Open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, fallow grain fields.	Low potential to occur based on habitats present and surrounding areas.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Falco columbarius (Nonbreeding/wintering)	Merlin	None/ WL/ None	Nests in open country, open coniferous forest, prairie; winters in open woodlands, grasslands, cultivated fields, marshes, estuaries and sea coasts.	Low potential to occur. There is no suitable habitat in the project area for this species.
Falco mexicanus (nesting)	Prairie falcon	BCC/ WL/ Covered	Grassland, savannas, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs.	Low potential to occur. There is no suitable habitat in the project area for this species.
Falco peregrinus anatum (nesting)	American peregrine falcon	BCC (FD)/ SE, P/ Covered	Nests on cliffs, buildings, bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present.	Low potential to forage over the project area.
Haliaeetus leucocephalus (nesting and nonbreeding/wintering)	Bald eagle	(FD)/ SE, P/ None	Seacoasts, rivers, swamps, large lakes; winters at large bodies of water in lowlands and mountains.	Not expected to occur. There is no suitable habitat in the project area for this species.
Icteria virens (nesting)	Yellow-breasted chat	None/ CSC/ None	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush.	Not expected to occur. There is CNDDB occurrence data for this species within 0.5 mile of the project area; however, suitable habitat does not exist on or near the project area.
Ixobrychus exilis (nesting)	Least bittern	None/ CSC/ None	Dense emergent wetland vegetation, sometimes interspersed with woody vegetation and open water.	Not expected to occur. There is no suitable habitat for this species in the project area.
Lanius ludovicianus	Loggerhead shrike	BCC/ CSC/ None	Open ground including grassland, coastal sage scrub, broken chaparral, agriculture, riparian, open woodland.	Low potential to occur. There is suitable habitat on the project area. This species may forage over the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Laterallus jamaicensis coturniculus	California black rail	BCC, USBC/ ST, P/ None	Saline, brackish, and fresh emergent wetlands.	Not expected to occur. There is no suitable habitat on the project area for this species.
Numenius americanus (nesting)	Long-billed curlew	BCC, USBC/ WL/ None	Nests in upland shortgrass prairies and wet meadows in northeast California; winters in coastal estuaries, open grasslands and croplands	Not expected to occur. There is no suitable habitat on the project area for this species.
Otus flammeolus (nesting)	Flammulated owl	BCC, USBC/ None/ None	Summer resident in a variety of coniferous habitats, including ponderosa and Jeffrey pine; rests near tops of trees.	Not expected to occur. There is no suitable habitat on the project area for this species.
Pandion haliaetus (nesting)	Osprey	None/ WL/ None	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast.	Not expected to occur. There is no suitable habitat on the project area for this species.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/ SE/ None	Saltmarsh, pickleweed.	Low potential to occur based on habitats present and surrounding areas.
Passerculus sandwichensis rostratus ((Nonbreeding/wintering)	Large-billed savannah sparrow	None/ CSC/ None	Saltmarsh, pickleweed.	Not expected to occur. There is no suitable habitat on the project area for this species.
Pelecanus erythrorhynchos (nesting colony)	American white pelican	None/ CSC/ None	Open water, coastal bays, large inland lakes.	Not expected to occur. There is no suitable habitat on the project area for this species.
Pelecanus occidentalis californicus (nesting colony and communal roosts)	California brown pelican	FE/ SD/ None	Open sea, large water bodies, coastal bays and harbors.	Not expected to occur. There is no suitable habitat on the project area for this species.
Phalacrocorax auritus (rookery site)	Double-crested cormorant	None/ WL/ None	Lakes, rivers, reservoirs, estuaries, ocean; nests in tall trees, rock ledges on cliffs, rugged slopes.	Not expected to occur. There is no suitable habitat on the project area for this species.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Piranga flava (nesting)	Hepatic tanager	None/ WL/ None	Coniferous forests mixed with oak, pinyon-juniper woodland.	Not expected to occur. There is no suitable habitat on the project area for this species.
Piranga rubra (nesting)	Summer tanager	None/ CSC/ None	Nests in riparian woodland; winter habitats include parks and residential areas.	Not expected to occur. There is no suitable habitat on the project area for this species.
Plegadis chihi (rookery site)	White-faced ibis	None/ WL/ None	Nests in marsh; winter foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields and estuaries.	Not expected to occur. There is no suitable habitat on the project area for this species.
Polioptila californica californica	Coastal California gnatcatcher	FT, USBC/ CSC/ Covered	Coastal sage scrub, coastal sage scrub-chaparral mix, coastal sage scrub-grassland ecotone, riparian in late summer.	Low potential to occur. There is suitable habitat adjacent to the project area but not on the project area. There is CNDDB occurrence data for this species within 0.5 mile of the project area.
Progne subis (nesting)	Purple martin	None/ CSC/ None	Nests in tall sycamores, pines, oak woodlands, coniferous forest; forages over riparian, forest and woodland.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Rallus longirostris levipes	Light-footed clapper rail	FE, BCC/ SE, P / None	Coastal saltmarsh.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Riparia riparia (nesting)	Bank swallow	None/ ST/ None	Nests in lowland country with soft banks or bluffs; open country and water during migration.	Not expected to occur. Suitable habitat is not present on the project area for this species.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Sternula antillarum browni (nesting colony)	California least tern	FE, USBC/ SE, P/ None	Nests along the coast from San Francisco Bay south to northern Baja California.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Thalasseus elegans (nesting colony)	Elegant tern	BCC, USBC/ WL/ None	Coastal waters, estuaries, large bays and harbors, mudflats.	Not expected to occur. Suitable habitat is not present on the project area for this species.
Strix occidentalis occidentalis	California spotted owl	USBC, BCC/ CSC/ None	Forests and woodlands dominated by hardwoods, oak and oak-conifer woodlands, and conifers at high elevations.	Not expected to occur. Suitable habitat is not present on the project area for this species. Outside of range for species.
Toxostoma lecontei	Le Conte's thrasher	BCC, USBC/ CSC/ None	Open desert wash, creosote scrub, alkali desert scrub, desert succulent scrub.	Not expected to occur. Suitable habitat is not present on the project area for this species. Outside of range for species.
Vireo bellii pusillus (nesting)	Least Bell's vireo	FE, BCC, USBC/ SE/ Covered	Nests in southern willow scrub with dense cover within 1 to 2 meters of the ground; habitat includes willows, cottonwoods, baccharis, wild blackberry or mesquite on desert areas.	Not expected to occur. There is CNDDB occurrence data for this species within 0.5 mile of the project area; however, suitable habitat does not exist on or near the project area.
Mammals				
Antrozous pallidus	Pallid bat	None/ CSC/ None	Rocky outcrops, cliffs, and crevices with access to open habitats for foraging.	Not expected to occur. There is no suitable roosting habitat or foraging habitat for this species.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Canis latrans	Coyote	None/ None/ Covered	Almost all habitats and successional stages; frequents open brush, scrub, shrub, and herbaceous habitats; also younger deciduous and conifer forest and woodland.	High potential to occur. There is suitable habitat for this species in the project area.
Chaetodipus californicus femoralis	Dulzura (California) pocket mouse	None/ CSC/ None	Coastal sage scrub, chaparral, riparian-scrub ecotone; more mesic areas.	Not expected to occur. Suitable habitat is present on the project area for this species. North of range for species.
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	None/ CSC/ None	Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams and sandy loams.	Not expected to occur. Suitable habitat and soils are not present on the project area for this species.
Choeronycteris mexicana	Mexican long-tongued bat	None/ CSC/ None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings.	Low potential to occur based on habitats present and surrounding areas.
Corynorhinus townsendii	Townsend's big-eared bat	None/ CSC/ None	Mesic habitats, gleans from brush or trees or feeds along habitat edges.	Moderate potential to forage over the project area.
Dipodomys merriami collinus	Earthquake Merriam's kangaroo rat	None/ None/ None	Riversidean alluvial fan sage scrub, flood plains, sandy and sandy loam soils.	Not expected to occur. There is no suitable habitat for this species in the project area. Outside of range for species.
Dipodomys merriami parvus	San Bernardino Merriam's kangaroo rat	FE/ CSC/ None	Riversidean alluvial fan sage scrub, flood plains, sandy and sandy loam soils.	Not expected to occur. There is no suitable habitat for this species in the project area. Outside of range for species.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Dipodomys stephensi	Stephens' kangaroo rat	FE/ ST/ None	Open habitat, grassland, sparse coastal sage scrub, sandy loam and loamy soils with low clay content; gentle slopes (<30%).	Not expected to occur. There is no suitable soil habitat for this species in the project area. Outside of range for species.
Euderma maculatum	Spotted bat	None/ CSC/ None	Rock crevices, riparian forest, woodland, and scrub, ponds, lakes, grasslands.	Low potential to occur. May forage over the adjacent areas.
Eumops perotis californicus	Western mastiff bat	None/ CSC/ None	Roosts in small colonies in cracks and small holes, seeming to prefer man-made structures.	Moderate potential to occur. There is suitable roosting habitat adjacent to the project area. This species may forage in the project area.
Lasiurus blossevillii	Western red bat	None/ CSC/ None	Prefers edges with trees for roosting and open areas for foraging. Roosts in woodlands and forests. Forages over grasslands, shrublands, woodlands, forests, and croplands.	Not expected to occur. There is no suitable habitat for this species in the project area.
Lasiurus xanthinus	Western yellow bat	None/ CSC/ None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland.	Not expected to occur. There is no suitable habitat for this species in the project area.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/ CSC/ None	Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands.	Moderate potential to occur. There is suitable habitat for this species in the project area.
Neotoma lepida intermedia	San Diego desert woodrat	None/ CSC/ Covered	Coastal sage scrub, chaparral, pinyon-juniper woodland with rock outcrops, cactus thickets, dense undergrowth.	Low potential to occur. Marginal habitat quality on site.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Nyctinomops femorosaccus	Pocketed free-tailed bat	None/ CSC/ None	Rocky desert areas with high cliffs or rock outcrops.	Not expected to occur. There is no suitable habitat for this species in the project area.
Nyctinomops macrotis	Big free-tailed bat	None/ CSC/ None	Rugged, rocky canyons.	Not expected to occur. There is no suitable habitat for this species in the project area.
Onychomys torridus ramona	Southern grasshopper mouse	None/ CSC/ None	Grassland, sparse coastal sage scrub.	Low potential to occur. Marginal habitat quality on site.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None/ CSC/ None	Grassland, coastal sage scrub, disturbed habitats; fine, sandy soils.	Not expected to occur. There is no suitable habitat for this species in the project area.
Perognathus longimembris pacificus	Pacific pocket mouse	FE/ CSC/ Covered	Grassland, coastal sage scrub with sandy soils; along immediate coast.	Not expected to occur. There is CNDDB occurrence data for this species within 0.5 mile of the project area, but the habitat quality is unsuitable.
Sorex ornatus salicornicus	Southern California saltmarsh shrew	None/ CSC/ None	Valley foothill and montane riparian optimal (prefers moist soil); also woodland, chaparral, grassland, and emergent wetland. Nests in wood, shrubs, and burrows.	Not expected to occur. There is no suitable habitat for this species in the project area.
Taxidea taxus	American badger	None/ CSC/ None	Dry, open treeless areas, grasslands, coastal sage scrub.	Low potential to occur. The project area is surrounded by residential areas, which would make it unlikely for this species to occur.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Urocyon cineroargentues	Gray fox	None/ None/ Covered	Shrublands, brushy and open-canopied forests, interspersed with riparian areas. Dens in cavities, in rocky areas, snags, logs, brush, slash piles, old burrows, and under buildings.	Moderate potential to occur. This species may utilize the project area and surrounding areas.
Invertebrates				
Branchinecta lynchi	Vernal pool fairy shrimp	FT/ None/ None	Vernal pools; cool-water pools with low to moderate dissolved solids.	Not expected to occur. There is no suitable habitat for this species in the project area.
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/ None/ Covered	Small, shallow vernal pools, occasionally ditches and road ruts.	Not expected to occur. There is no suitable habitat for this species in the project area.
Euphydryas editha quino	Quino checkerspot butterfly	FE/ None/ Covered	Sparsely vegetated hilltops, ridgelines, occasionally rocky outcrops; host plant Plantago erecta and nectar plants must be present.	Not expected to occur. There is no suitable habitat for this species in the project area.
Rhaphiomidas terminatus abdominalis	Delhi sands flower-loving fly	FE/ None/ None	Associated with Delhi sands formation; sparsely vegetated habitat (< 50%) supporting *Eriogonum fasciculatum*, *Croton californicus*, *Heterotheca grandiflora*.	Not expected to occur. There is no suitable habitat for this species in the project area.
Streptocephalus woottoni	Riverside fairy shrimp	FE/ None/ Covered	Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm-water pools that have low to moderate dissolved solids.	Not expected to occur. There is no suitable habitat for this species in the project area.
Fish				
Catostomus santaanae	Santa Ana sucker	FT/ CSC/ None	Small, shallow, cool, clear streams less than 7 meters in width and a few centimeters to more than 1 meter in depth; substrates are generally coarse gravel, rubble and boulder	Not expected to occur. There is no suitable habitat for this species in the project area.

Table 2 (Continued)

Scientific Name	Common Name	Status Federal/ State/ NCCP[1]	Primary Habitat Associations	Potential to Occur
Eucyclogobius newberryi	Tidewater goby	FE/ CSC/ None	Low-salinity waters in coastal wetlands.	Not expected to occur. There is no suitable habitat for this species in the project area.
Gila orcutti	Arroyo chub	None/ CSC/ None	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths greater than 40 centimeters; substrates of sand or mud.	Not expected to occur. There is no suitable habitat for this species in the project area.
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	None/ CSC/ None	Permanent streams with cool, flowing rocky-bottomed washes, shallow cobble and gravel riffles.	Not expected to occur. There is no suitable habitat for this species in the project area.

[1] The federal and state status of species is based on the California Department of Fish and Game's Special Animals list (July 2009) and the Final Central-Coastal NCCP/HCP (1996).

Federal Designations:

BCC U.S. Fish and Wildlife Service: Birds of Conservation Concern
FC Candidate for federal listing as threatened or endangered
(FD) Federally delisted; monitored for 5 years
FE Federally listed endangered
FP Federally listed as protected
FT Federally listed as threatened
USBC U.. Bird Conservation Watch List

State Designations:

CSC California Special Concern Species
P California Department of Fish and Game Protected and Fully Protected Species
SE State-listed as endangered
ST State-listed as threatened
WL Watch List

NCCP Designations:

Covered – Covered species (including species with conditional coverage) under Central-Coastal NCCP/HCP

Special-Status Plants

For each species listed in Table 3, a determination was made regarding the status of the species on site or the potential for the species to occur within the study area based on information gathered during the surveys, including the location of the site, habitats present, current site conditions, past and present land use, and a review of known locations based on the CNDDB (CDFG 2010) and Central/Coastal NCCP/HCP (County of Orange 1995b). If the known

CNDDB or Central/Coastal NCCP/HCP occurrences of a special-status plant species are more than 5 miles from the study area or not within the CNPS nine-quad search, then the species is considered to be outside of its the known geographic range (Table 3).

There is CNDDB occurrence data within 0.5 mile of the project area for one CNPS list 1B species: many-stemmed dudleya (*Dudleya multicaulis*), and this species has potential to occur on the project area (Table 3). No special-status plant species were identified during the survey. There is no occurrence data for any other CNDDB species within 0.5 mile of the project area.

Table 3
Sensitive Plant Species Detected or Potentially Occurring on the Project Site

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Abronia maritima	Red-sand verbena	None/ None/ None	4.2	Coastal dunes/ Perennial herb/ February–November	0–328	Not expected to occur. There is no suitable habitat for this species in the project area; no suitable vegetation is present.
Abronia villosa var. *aurita*	Chaparral sand-verbena	None/ None/ None	1B.1	Chaparral, coastal scrub; sandy/ annual herb/ January–August	262–5,249	Not expected to occur. There are no suitable sandy soils present. Project site is outside of known geographic range of species.
Aphanisma blitoides	Aphanisma	None/ None/ None	1B.2	Coastal bluff scrub, coastal sage scrub, sandy soils/ annual herb/ April–May	3–1,001	Not expected to occur. There are no suitable sandy soils present.
Artemisia palmeri	San Diego sagewort	None/ None/ None	4.2	Chaparral, coastal sage scrub, riparian forest and scrub, sandy soils/ shrub/ July–September	49–3,002	Not expected to occur. There are no suitable sandy soils present. This shrub would have been observed at the time of the survey. Project site is outside of known geographic range of species.
Astragalus brauntonii	Braunton's milk-vetch	FE/ None/ None	1B.1	Closed-cone conifer forest, chaparral, coastal sage scrub, valley and foothill grassland, recent burns or disturbed areas/ perennial herb/ March–July	13–2,100	Not expected to occur. The project area is a revegetation site that is irrigated and regularly maintained. Nearest recorded observation is over 15 miles from the project area (CDFG 2010). Due to this level of disturbance, it is not likely that this species occurs on the project site.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Atriplex coulteri	Coulter's saltbush	None/ None/ None	1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland, alkaline or clay soils/ perennial herb/ March–October	10–1,509	Low potential to occur. There is coastal scrub vegetation present; however, clay and alkaline soils are likely not present due to site disturbance; recorded in the vicinity (approximately 1.2 miles from the project area (CDFG 2010)).
Atriplex pacifica	South Coast saltscale	None/ None/ None	1B.2	Coastal bluff scrub, coastal sage scrub, playas/ annual herb/ March–October	0–459	Not expected to occur. There is suitable coastal scrub vegetation on the project area; also recorded in the vicinity (less than 2 miles from the project area (CDFG 2010)).
Atriplex parishii	Parish's brittlescale	None/ None/ None	1B.1	Chenopod scrub, playas, vernal pools/ annual herb/ June–October	82–6,234	Not expected to occur. There is no suitable vegetation on the project area for this species. Project site is outside of known geographic range of species.
Atriplex serenana var. *davidsonii*	Davidson's saltscale	None/ None/ None	1B.2	Coastal bluff scrub, coastal sage scrub, alkaline soils/ annual herb/ April–October	33–656	Low potential to occur. There is coastal scrub vegetation present; however, alkaline soils are likely not present due to site disturbance; recorded in the vicinity (less than 2 miles from the project area (CDFG 2010)).
Berberis nevinii	Nevin's barberry	FE/ SE/ None	1B.1	Chaparral, cismontane woodland, coastal sage scrub, riparian scrub, sandy or gravelly soils/ shrub/ March–April	899–2,707	Not expected to occur. There are no suitable sandy or gravelly soils present. This shrub would have been observed at the time of the survey. Project site is outside of known geographic and elevation range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Bergerocactus emoryi	Golden-spined cereus	None/ None/ None	2.2	Closed-cone coniferous forest, chaparral, coastal sage scrub, sandy soils/ shrub (stem succulent)/ May–June	10–1,296	Not expected to occur. There are no suitable sandy soils present. Perennial succulent would have been observed at the time of the survey. Project site is outside of known geographic range of species.
Brodiaea filifolia	Thread-leaved brodiaea	FT/ SE/ None	1B.1	Coastal sage scrub, cismontane woodland, valley and foothill grassland, vernal pools, clays/ perennial herb/ March–June	82–3,999	Not expected to occur. There is no suitable coastal scrub vegetation and clay soil on the project area; project site is outside of known geographic range of species (nearest record is over 8 miles away (CDFG 2010)).
Calandrinia breweri	Brewer's calandrinia	None/ None/None	4.2	Disturbed areas in chaparral, northern coastal scrub, and coastal sage scrub/ annual herb/ March–June	0–3,500	Not expected to occur. Species is typically a fire follower, and site has been not been burned recently. Also, the project area is a revegetation site that is irrigated and regularly maintained. Due to this level of disturbance, it is not likely that this species occurs on the project site.
Calochortus catalinae	Catalina mariposa lily	None/ None/ NCCP	4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland/ perennial herb/ February–May	49–2,297	Not expected to occur. Species is a geophytic species that would have likely been disturbed during grading. Also, the project area is a revegetation site that is irrigated and regularly maintained. Due to this level of disturbance, it is not likely that this species occurs on the project site.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Calochortus plummerae	Plummer's mariposa lily	None/ None/ None	1B.2	Chaparral, cismontane woodland, coastal sage scrub, lower montane conifer forest, valley and foothill grassland, granitic soils/ perennial herb/ May–June	328–5,577	Not expected to occur. There are no suitable granitic soils present. Project site is outside of known geographic and elevation range of species.
Calochortus weedii var. *intermedius*	Intermediate mariposa lily	None/ None/ NCCP	1B.2	Chaparral, coastal sage scrub, valley and foothill grassland, rocky areas/ perennial herb/ May–July	344–2,805	Not expected to occur. There are no suitable rocky areas present. Project site is outside of known elevation range of species.
Camissonia lewisii	Lewis' evening primrose	None/ None/None	3	Coastal dunes, coastal scrub, coastal bluff scrub, cismontane woodland, valley and foothill grasslands, sandy or clay soils/ annual herb/ March–May	0–984	Not expected to occur. The project area is a revegetation site that is irrigated and regularly maintained. Species typically occurs on sandy substrates. Due to this level of disturbance, it is not likely that this species occurs on the project site.
Caulanthus simulans	Payson's jewelflower	None/ None/ None	4.2	Chaparral, coastal sage scrub, sandy and granitic soils/ annual herb/ March–June	295–7,218	Not expected to occur. There are no suitable sandy and granitic soils present. Project site is outside of known geographic and elevation range of species.
Centromadia [Hemizonia] parryi ssp. *australis*	Southern tarplant	None/ None/ None	1B.1	Valley and foothill grassland (vernally mesic), estuary margins, vernal pools/ annual herb/ June–November	0–1,401	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation or mesic habitat.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Centromadia [Hemizonia] pungens ssp. *laevis*	Smooth tarplant	None/ None/ None	1B.1	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland/ annual herb/ April–September	0–1,575	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation. Project site is outside of known geographic range of species.
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/ None/ None	1B.1	Coastal bluff scrub, coastal dunes/ annual herb/ January–August	10–328	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. Project site is outside of known geographic range of species.
Chorizanthe parryi var. *fernandina*	San Fernando Valley spineflower	FC/ SE/ None	1B.1	Coastal sage scrub, sandy soils/ annual herb/ April-June	492–4,003	Not expected to occur. There are no suitable sandy soils present. Project site is outside of known elevation range of species.
Chorizanthe parryi var. *parryi*	Parry's spineflower	None/ None/ None	3.2	Chaparral, coastal sage scrub, sandy openings/ annual herb/ April–June	902–4,003	Not expected to occur. There are no suitable sandy openings present. Project site is outside of known geographic and elevation range of species.
Comarostaphylis diversifolia ssp. *diversifolia*	Summer holly	None/ None/ None	1B.2	Chaparral/ shrub/ April–June	98–1,804	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. This shrub would have been observed at the time of the survey.
Cordylanthus maritimus ssp. *maritimus*	Salt marsh bird's-beak	FE/ SE/ None	1B.2	Coastal dunes, coastal saltwater marshes and swamps/ annual herb/ May–October	0–98	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. Project site is outside of known elevation range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Cupressus forbesii	Tecate cypress	None/ None/ NCCP	1B.1	Closed-cone conifer forest, chaparral/ tree/ NA	837–4,921	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. This tree would have been observed at the time of the survey. Project site is outside of known geographic and elevation range of species.
Deinandra paniculata	Paniculate tarplant	None/ None	4.2	Coastal scrub, valley and foothill grasslands, and vernal pools; usually mesic/ Annual herb/ April–November	82–3,084	Not expected to occur. Although coastal scrub occurs on site, suitable mesic habitat and vernal pools are absent and site is disturbed
Dichondra occidentalis	Western dichondra	None/ None/ None	4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland/ perennial herb/ March–May	164–1,640	Not expected to occur. The project area is a revegetation site that is irrigated and regularly maintained. Due to this level of disturbance, it is not likely that this species occurs on the project site.
Dodecahema leptoceras	Slender-horned spineflower	FE/ SE/ None	1B.1	Chaparral, coastal sage scrub (alluvial fan)/ annual herb/ April–June	656–2,493	Not expected to occur. There is no suitable habitat on the project area; there are no alluvial fans present. Project site is outside of known geographic and elevation range of species.
Dudleya blochmaniae spp. *blochmaniae*	Blochman's dudleya	None/ None/ None	1B.1	Coastal bluff scrub, coastal sage scrub, valley and foothill grassland, rocky, often clay or serpentine soil/ perennial herb/ April–June	16–1,476	Not expected to occur. There is coastal scrub vegetation present; however, clay or serpentine soils are likely not present due to site disturbance. Rocky soils are not present. Although there is suitable coastal scrub present, the project site is outside of known geographic range of species (nearest record approximately 12 miles away (CDFG 2010)).

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Dudleya cymosa ssp. *ovatifolia*	Santa Monica Mountains dudleya	FT/ None/ NCCP	1B.2	Chaparral, coastal sage scrub, volcanic substrates/ perennial herb/ March–June	492–5,495	Not expected to occur. There are no suitable volcanic substrates on the project area. Project site is outside of known geographic and elevation range of species.
Dudleya multicaulis	Many-stemmed dudleya	None/ None/ None	1B.2	Coastal bluff scrub, coastal sage scrub, valley and foothill grassland, rocky, often clay or serpentine soil/ perennial herb/ April–June	49–2,592	Not expected to occur. There is a CNDDB occurrence data within 0.5 mile of the project area (CDFG 2010). While there is suitable coastal scrub habitat, t no rocky soils are present. Also, clay or serpentine soils are likely not present due to site disturbance.
Dudleya stolonifera	Laguna Beach dudleya	FT/ ST/ NCCP	1B.1	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, rocky areas/ perennial herb/ May–July	33–853	Not expected to occur. There is no suitable habitat on the project area; no suitable rocky areas are present.
Dudleya viscida	Sticky dudleya	None/ None/ None	1B.2	Coastal bluff scrub, chaparral, coastal sage scrub, rocky areas/ perennial herb/ May–June	33–1,804	Not expected to occur. There is no suitable habitat on the project area; no suitable rocky areas present. Project site is outside of known geographic and elevation range of species.
Eleocharis parvula	Small spikerush	None/ None/ None	4.3	Saltmarsh/ perennial herb/ June–September	3–9,908	Not expected to occur. There is no suitable saltmarsh habitat present. Project site is outside of known geographic range of species.
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	FE/ SE/ None	1B.1	Chaparral, coastal sage scrub (alluvial fan)/ perennial herb/ June–August	299–2,001	Not expected to occur. There are no alluvial fans present. Project site is outside of known geographic and elevation range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Euphorbia misera	Cliff spurge	None/ None/ None	2.2	Coastal bluff scrub, coastal scrub; rocky/ shrub/ December–August	33–1,640	Not expected to occur. There are no suitable rocky areas present. This shrub would have been observed at the time of the survey.
Harpagonella palmeri	Palmer's grapplinghook	None/ None/ None	4.2	Chaparral, coastal sage scrub, valley and foothill grassland, clays/ annual herb/ March–April	66–3,133	Low potential to occur. There is coastal scrub vegetation present; however, clay soils are likely not present due to site disturbance.
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	None/ None/ None	1A	Saltwater marsh, freshwater marsh/ perennial herb/ August–October	33–5,495	Not expected to occur. There is no suitable marsh habitat on the project area.
Holocarpha virgata ssp. *elongata*	Graceful tarplant	None/ None/ None	4.2	Coastal sage scrub, cismontane woodland, chaparral (?), valley and foothill grassland/ annual herb/ August–November	197–3,609	Not expected to occur. Although there is suitable coastal scrub habitat on the project area for this species, the project site is outside of known geographic range of species.
Hordeum intercedens	Vernal barley	None/ None/ None	3.2	Valley and foothill grassland (saline flats and depressions), vernal pools/ annual herb/ March–June	16–3,281	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation or vernal pools present.
Isocoma menziesii var. *decumbens*	Decumbent goldenbush	None/ None/ None	1B.2	Coastal sage scrub (sandy, often disturbed areas)/ shrub/ April–November	33–433	Not expected to occur. This shrub would have been observed at the time of the survey. There are no suitable sandy soils on the project area. Project site is outside of known geographic range of species.
Juglans californica	Southern California black walnut	None/ None/ None	4.2	Chaparral, cismontane woodland, coastal sage scrub, alluvial areas/ tree/ March–May	164–2,953	Not expected to occur. There are no suitable alluvial areas on the project area. This tree would have been observed at the time of the survey.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Juncus acutus spp. *leopoldii*	Southwestern spiny rush	None/ None/ None	4.2	Coastal dunes, meadows and seeps (alkaline), saltwater marsh/ perennial herb/ May–June	10–2,953	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation or mesic habitat present. This species would have been observed at the time of the survey, if present. Project site is outside of known geographic range of species.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/ None/ None	1B.1	Saltwater marsh and swamps, playas, vernal pools/ annual herb/ February–June	3–4,003	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation or mesic habitat present.
Lepechinia cardiophylla	Heart-leaved pitcher sage	None/ None/ NCCP	1B.2	Closed-cone conifer forest, chaparral, cismontane woodland/ shrub/ April–July	1,706–4,495	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. This shrub would have been observed at the time of the survey. Project area is below the elevation range for this species.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/ None/ None	1B.2	Chaparral, coastal sage scrub/ annual herb/ January–July	3–2,904	Not expected to occur. Although there is suitable coastal scrub habitat on the project area, the project site is outside of known geographic range of species.
Lilium humboldtii ssp. *ocellatum*	Ocellated Humboldt lily	None/ None/ None	4.2	Chaparral, cismontane woodland, lower montane conifer forest, openings/ perennial herb/ April–July	98–5,906	Not expected to occur. There is no suitable habitat on the project area; no suitable vegetation present. Project site is outside of known geographic range of species.
Lycium californicum	California box-thorn	None/ None/ None	4.2	Coastal bluff scrub and coastal scrub/ shrub/ (Dec) March–August	0–492	Not expected to occur. Although there is suitable coastal scrub habitat present for this species, this shrub would have been observed during surveys.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Lycium brevipes var. *hassei*	Santa Catalina Island desert-thorn	None/ None/ None	1B.1	Coastal bluff scrub, coastal sage scrub/ shrub/ June	33–984	Not expected to occur. Although there is suitable coastal scrub habitat present for this species, this shrub would have been observed during surveys. Also, the project site is outside of known geographic range of species.
Machaeranthera juncea	Rush-like bristleweed	None/ None/ None	4.3	Chaparral, coastal sage scrub/ perennial herb/ June–October	0–3,280	Not expected to occur. Project site is outside of known geographic range of species.
Malacothrix saxatilis var. *saxatilis*	Cliff malacothrix	None/ None/ None	4.2	Coastal bluff scrub or coastal scrub/ Perennial herb/ March–September	0–656	Low potential to occur. There is suitable coastal scrub vegetation on the project area; however, clay soils are likely not present due to site disturbance.
Microseris douglasii var. *platycarpha*	Small-flowered microseris	None/ None/ None	4.2	Cismontane woodland, coastal sage scrub, valley and foothill grassland, clays/ annual herb/ March–May	49–3,510	Not expected to occur. Project site is outside of known geographic range of species.
Mimulus clevelandii	Cleveland's bush monkeyflower	None/ None/ None	4.2	Chaparral, lower montane conifer forest (often in disturbed areas)/ perennial herb/ May–July	2,674–6,562	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. Project site is outside of known geographic and elevation range of species.
Mimulus diffusus	Palomar monkeyflower	None/ None/ None	4.3	Chaparral, lower montane coniferous forest/ annual herb/ April–June	4,003–6,004	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. Project site is outside of known geographic and elevation range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Monardella hypoleuca ssp. *lanata*	Felt-leaved monardella	None/ None/ None	1B.2	Chaparral, cismontane woodland/ perennial herb/ May–July	984–5,187	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. Project site is outside of known geographic and elevation range of species.
Monardella macrantha ssp. *hallii*	Hall's monardella	None/ None/ None	1B.3	Broad-leaved upland forest, chaparral, cismontane woodland, lower montane conifer forest, valley and foothill grassland/ perennial herb/ June–August	2,395–7,201	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. Project site is outside of known geographic and elevation range of species.
Mucronea californica	California spineflower	None/ None/ None	4.2	Chaparral, cismontane woodland, coastal dunes, coastal sage scrub, valley and foothill grassland, sandy soils/ annual herb/ March–August	0–4,593	Not expected to occur. There are no suitable sandy soils present. Project site is outside of known geographic range of species.
Myosurus minimus ssp. *apus*	Little mousetail	None/ None/ None	3.1	Vernal pools (alkaline)/ annual herb/ March–June	66–2,100	Not expected to occur. There are no suitable vernal pools present. Project site is outside of known geographic range of species.
Nama stenocarpum	Mud nama	None/ None/ None	2.2	Marsh and swamps, lake margins and riverbanks/ annual-perennial herb/ January–July	16–1,640	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation or mesic habitat present.
Navarretia fossalis	Spreading navarretia	FT/ None/ None	1B.1	Chenopod scrub, shallow freshwater marsh and swamps, vernal pools/ annual herb/ April–June	98–4,265	Not expected to occur. There is no suitable habitat on the project area; there are no suitable vegetation, mesic habitat, or vernal pools present. Project site is outside of known geographic range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Navarretia prostrata	Prostrate navarretia	None/ None/ None	1B.1	Coastal scrub, valley and foothill grassland (alkaline), vernal pools; mesic/ annual herb/ April–July	49–2,297	Not expected to occur. There is no suitable habitat on the project area; there are no suitable vegetation or vernal pools present. Project site is outside of known geographic range of species.
Nemacaulis denudata var. *denudata*	Coast woolly-heads	None/ None/ None	1B.2	Coastal dunes, desert dunes, Sonoran Desert scrub/ annual herb/ March–May	0–328	Not expected to occur. There is no suitable vegetation present; there is no dune or desert habitat present.
Nolina cismontana	Chaparral beargrass	None/ None/ None	1B.2	Chaparral/ perennial herb/ June–July	459–4,183	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation. This species would have been observed at the time of the survey, if present. Project site is outside of known elevation range of species.
Ophioglossum californicum	California adder's-tongue	None/ None/ None	4.2	Chaparral, valley and foothill grassland, vernal pools (margins)/ perennial herb/ December–May	197–1,722	Not expected to occur. There is no suitable habitat on the project area; there are no suitable vegetation or vernal pools present. Project site is outside of known geographic range of species.
Orcuttia californica	California Orcutt grass	FE/ SE/ None	1B.1	Vernal pools/ annual herb/ April–June	49–2,165	Not expected to occur. There are no vernal pools present. Project site is outside of known geographic range of species.
Penstemon californicus	California beardtongue	None/ None/ None	1B.2	Chaparral, lower montane coniferous forests, and Pinyon-juniper woodlands; sandy/ perennial herb/ May–June (August)	3,839–7,546	Not expected to occur. There is no suitable habitat for this species in the project area; there are no suitable vegetation or sandy soils present. The project area is below the elevation range for this species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Phacelia nashiana	Charlotte's phacelia	None/ None/ None	1B.2	Pinyon-juniper woodlands, Mojavean Desert scrub, Joshua tree woodland, granitic soils/ annual herb/ March–June	1,969–7,218	Not expected to occur. There is no suitable habitat on the project area; there are no suitable vegetation or granitic soils present. Project site is outside of known geographic and elevation range of species.
Phacelia suaveolens ssp. *keckii*	Santiago Peak phacelia	None/ None/None	1B.3	Closed-cone conifer forest, chaparral/ annual herb/ May–June	1,788–5,249	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. Project site is outside of known geographic and elevation range of species.
Polygala cornuta var. *fishiae*	Fish's milkwort	None/ None/None	4.3	Chaparral, cismontane woodland, riparian woodland/ shrub/ May–August	328–3,281	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation or mesic habitat. Project site is outside of known elevation range of species.
Quercus dumosa	Nuttall's scrub oak	None/ None/ NCCP	1B.1	Chaparral, coastal sage scrub, sandy and clay loam soils/ shrub/ February–March	49–1,312	Not expected to occur. This shrub would have been observed at the time of the survey.
Quercus engelmannii	Engelmann oak	None/ None/ None	4.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland/ tree/ April–May	164–4,265	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation present. This tree would have been observed at the time of the survey. Project site is outside of known geographic range of species.
Romneya coulteri	Coulter's matilija poppy	None/ None/ NCCP	4.2	Chaparral, coastal sage scrub, often in burned areas/ perennial herb/ May–July	66–3,937	Not expected to occur. This perennial herb would have been observed at the time of the survey.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Rorippa gambellii	Gambel's water cress	FE/ ST/ None	1B.1	Marsh and swamps (freshwater and brackish)/ perennial herb/ April–June	16–1,082	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation or mesic habitat present. Project site is outside of known geographic range of species.
Sagittaria sanfordii	Sanford's arrowhead	None/ None/ None	1B.2	Shallow freshwater marshes and swamps/ perennial herb/ May–August	0–2,133	Not expected to occur. There is no suitable habitat on the project area; there is no suitable vegetation or mesic habitat present. Project site is outside of known geographic range of species.
Satureja chandleri	San Miguel savory	None/ None/ None	1B.2	Chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland/ perennial herb/ March–May	394–3,527	Not expected to occur. Project site is outside of known geographic and elevation range of species.
Senecio aphanactis	Rayless ragwort	None/ None/ None	2.2	Cismontane woodland, coastal sage scrub, alkaline soils/ annual herb/ January–April	49–2,625	Moderate to high potential to occur. There is coastal scrub vegetation present; however, clay alkaline soils are likely not present due to site disturbance. The nearest CNDDB record for this species is within 2 miles of the project site (CDFG 2010).
Sidalcea neomexicana	Salt spring checkerbloom	None/ None/ None	2.2	Chaparral, coastal sage scrub, lower montane conifer forest, Mojavean Desert scrub, playas, alkaline-mesic areas/ perennial herb/ March–June	49–5,020	Not expected to occur. There is no suitable mesic habitat. Project site is outside of known geographic range of species.

Table 3 (Continued)

Scientific Name	Common Name	Status Federal/ State/ County	CNPS List	Primary Habitat Associations/ Life Form/ Blooming Period	Known Elevation Range (feet)	Status on Site or Potential to Occur
Suaeda californica	California seablite	FE/ None/None	1B.1	Coastal saltmarsh, and coastal wetlands, riparian areas/ shrub/ July–October	0–49	Not expected to occur. There is no suitable habitat on the project area, and this shrub would have been observed during on-site surveys.
Suaeda esteroa	Estuary seablite	None/ None/ None	1B.2	Saltmarsh/ perennial herb/ July–October	0–16	Not expected to occur. There is no suitable saltmarsh habitat on the project area.
Tetracoccus dioicus	Parry's tetracoccus	None/ None/ None	1B.2	Chaparral, coastal sage scrub/ shrub/ April–May	541–3,281	Not expected to occur. This shrub would have been observed at the time of the survey. Project site is outside of known geographic and elevation range of species.
Verbesina dissita	Big-leaved crownbeard	FT/ ST/ None	1B.1	Maritime chaparral, coastal sage scrub/ perennial herb/ April–July	148–673	Low potential to occur. Suitable coastal scrub habitat present. Nearest CNDDB record from 1987 is within 3 miles of the site. Records from 2003 are over 8 miles south of the site (CDFG 2010).
Viguiera laciniata	San Diego County viguiera	None/ None/ None	4.2	Chaparral, coastal sage scrub/ shrub/ February–June	197–2,461	Not expected to occur. This shrub would have been observed at the time of the survey. Project site is outside of known geographic range of species.

Legend
FC: Candidate for federal listing as threatened or endangered
FE: Federally listed as endangered
FT: Federally listed as threatened
NCCP: Covered Species under Central/Coastal NCCP
SE: State-listed as endangered
ST: State-listed as threatened

RECOMMENDATIONS

There will be no direct impacts to riparian or other sensitive natural communities or jurisdictional waters of the U.S., including wetlands. There will be no direct impacts to areas designated as reserves in the Central/Coastal NCCP/HCP area. No special-status wildlife or plant species are expected to be directly impacted during the project. However, there may be indirect construction-related impacts such as noise and dust.

Some bat species may forage over the project area; however, these species are not expected to roost, den, or take refuge on site and are not expected to be impacted by the project. Project activities will take place during the daytime.

Two species that are covered under the Central/Coastal NCCP/HCP area may occur in the project area; gray fox and coyote. These species are not expected to be impacted by project activities.

The following measures are recommended to minimize any effects of construction activities on biological resources:

- Construction activities will be limited to the defined project area in order to avoid impacts to the adjacent riparian area.
    - To avoid impacts to nesting birds, construction activities should be conducted between September 16 and March 14. If construction occurs inside the peak nesting season (between March 15 and September 15), a preconstruction survey by a qualified biologist will be required prior to construction activities, and a survey of surrounding areas for California gnatcatchers might be necessary.

Please contact Senior Wildlife Biologist, Brock Ortega at 760.942.5147 or bortega@dudek.com with any questions or concerns regarding the contents of this letter.

Sincerely,

_____
Traci A. Caddy
Wildlife Biologist

REFERENCES CITED

Baker, R.J., L.C. Bradley, R.D. Bradley, J.W. Dragoo, M.D. Engstrom, R.F. Hoffmann, C.A. Jones, F. Reid, D.W. Rice, and C. Jones. 2003. *Revised Checklist of North American Mammals north of Mexico, 2003*. Occasional Papers, no. 229:1–24. Lubbock, Texas: Museum of Texas Tech University. December 1, 2003.

California Department of Fish and Game (CDFG). 2006. "Special Animals." California Natural Diversity Database. Sacramento, California: CDFG. February 2006.

CDFG. 2010. California Natural Diversity Database (CNDDB).

CNPS (California Native Plant Society). 2010. Inventory of Rare and Endangered Plants (v7-09d). Sacramento, California: California Native Plant Society. Accessed February 18, 2010 at: http://www.cnps.org/inventoryDigitalGlobe. 2008. Aerial map provided by DigitalGlobe.

County of Orange, Environmental Management Agency. 1995a. *Implementation Agreement for the Orange County Central and Coastal Subregion Natural Community Conservation Plan/ Habitat Conservation Plan, County of Orange*. 1995.

County of Orange, Environmental Management Agency. 1995b. *Central and Coastal Subregion Natural Community Conservation Plan and Habitat Conservation Plan. Parts I & II NCCP/HCP; Part III Joint Programmatic EIR/EIS.* Prepared by R. J. Meade Consulting, Inc., San Diego. December 7, 1995.

Gray, J. and D. Bramlet. 1992. Habitat Classification System, Natural Resources Geographic Information System (GIS) Project. County of Orange Environmental Management Agency.

Hickman, J.C. (ed.). 1996. *The Jepson Manual: Higher Plants of California*. Third printing with corrections. Berkeley and Los Angeles, California: University of California Press.

Holland, R.F. 1986. *Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish and Game*. 156 pp.

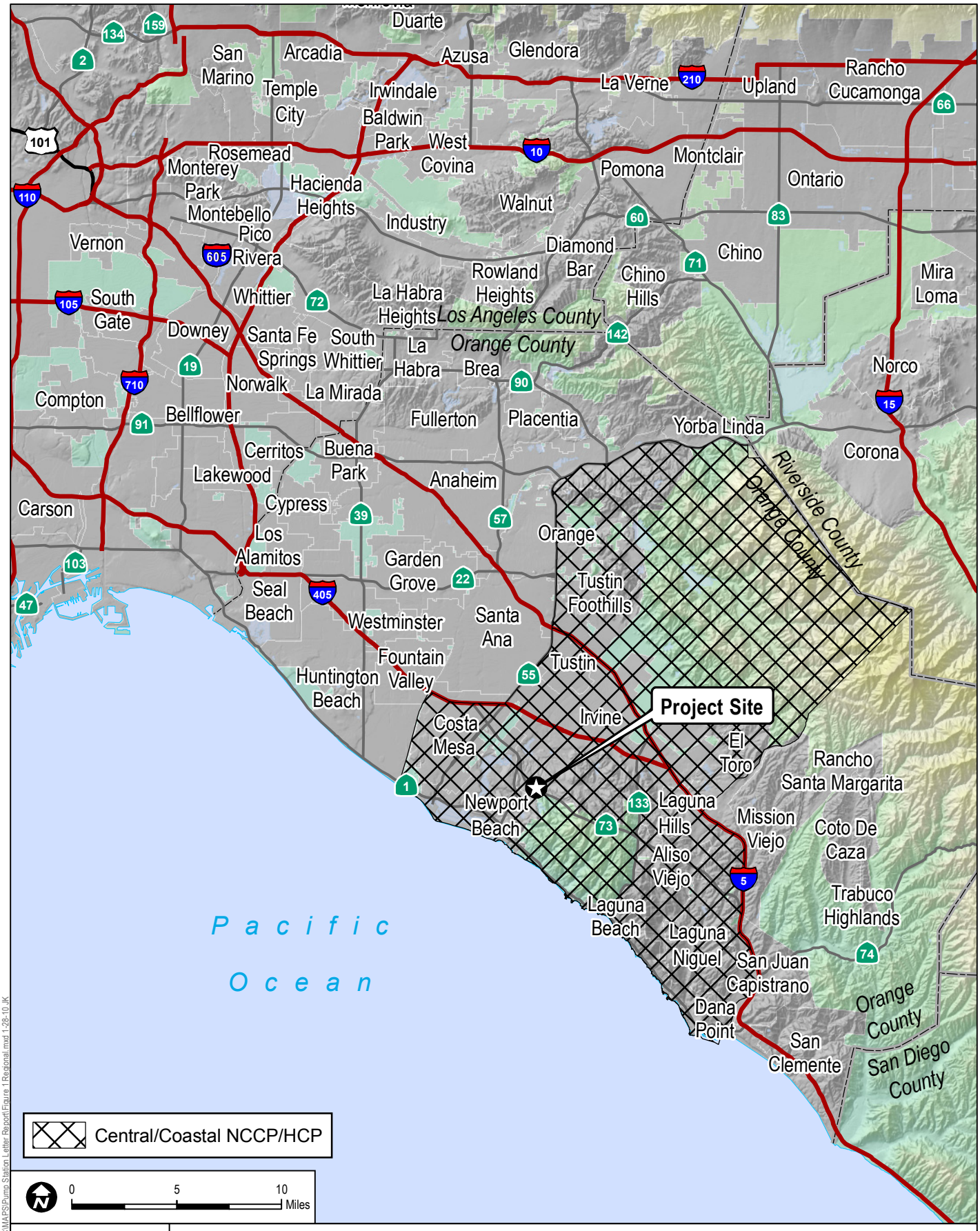
Johnston, A. M. and L.A. Messet. 2009. *Results of the Biological Constraints Survey for the OC-44 Underground BoosterPump Station Project Site, Newport Beach, Orange County, California*. Bonterra Consulting.

Sibley, D.A. 2001. *The Sibley Guide to birds.* New York, New York: Alfred A. Knopf, Inc.

Stebbins, R.C. 2003. *A Field Guide to Western Reptiles and Amphibians*. The Peterson Field Guide series, 3rd ed. New York, New York: Houghton Mifflin Co.

USDA (U.S. Department of Agriculture). 1978.. *Soil Survey of Orange County and Western Riverside County, California*. USDA Soil Conservation Service and Forest Service and the University of California Agricultural Experiment Station. September 1978.

USGS (U.S. Geological Survey). No date. 7.5 Minute Map Series Tustin and Laguna Beach Quadrangles.



DUDEK

6483-01

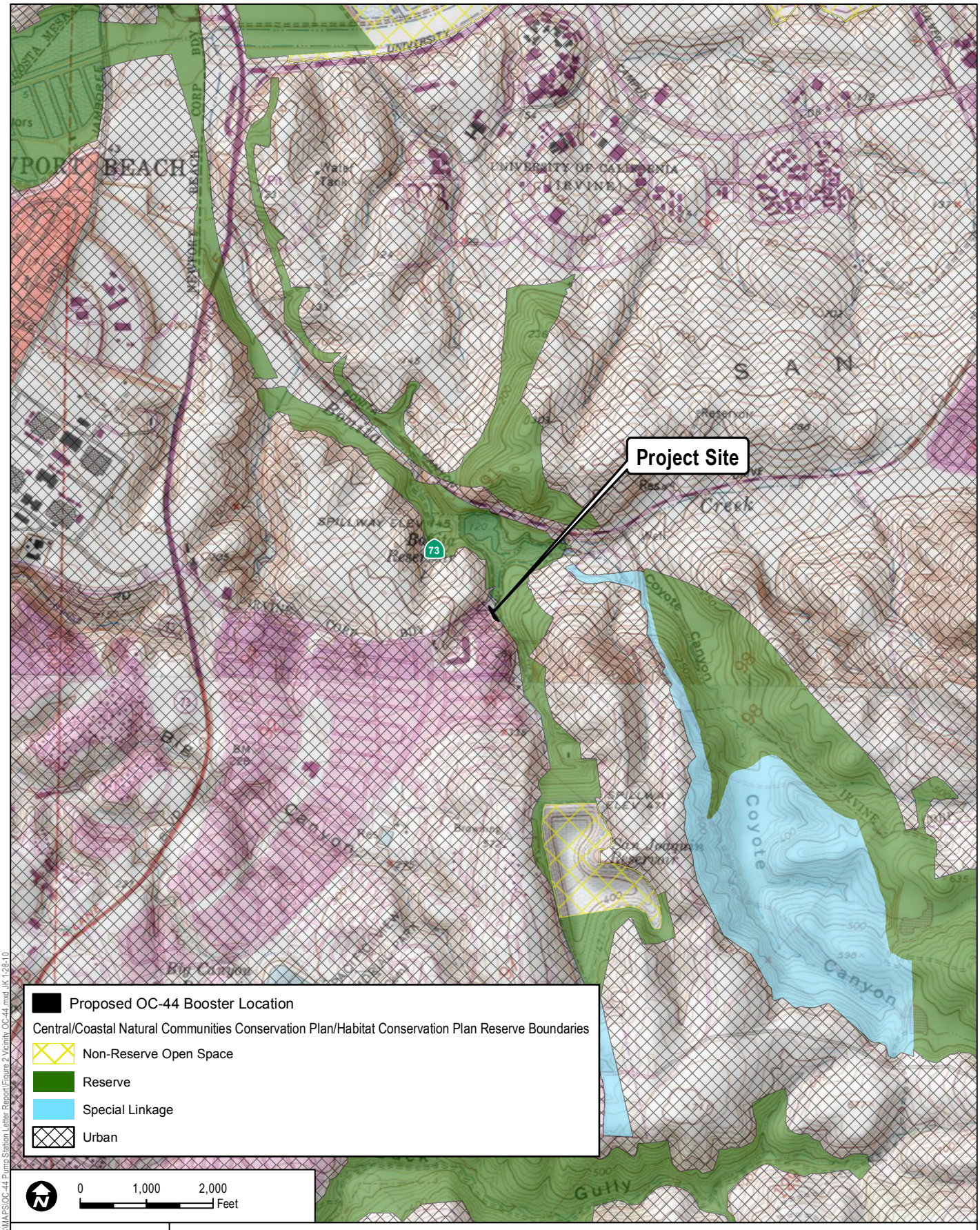
FEBRUARY 2010

FIGURE 1

Regional Map

Poseidon Huntington Beach Seawater Desalination Plant
Underground Booster Pump Station Project Site Option 3

Z:\Projects\6483011\MAPD OC\MAPS\Pump Station Letter Report\Figure 1 Regional.mxd 1-28-10 JK



SOURCE: County of Orange, Environmental Management Agency 1995; USGS 7.5 Minute Map Series Tustin and Laguna Beach Quadrangles.

FIGURE 2
Vicinity Map

DUDEK

6483-01
FEBRUARY 2010

Poseidon Huntington Beach Seawater Desalination Plant
Underground Booster Pump Station Project Site Option 3

Z:\Projects\6483011\MAPD\OC\MAPS\OC-44 Pump Station Letter Report\Figure 2 Vicinity OC-44.mxd JK 1:28:10

Z:\Projects\6483011\MAPD\OC\MAPS\OC-44 Pump Station Alternate Location Letter Report\Figure 3 Veg OC-44 Alternate Location.mxd 2-2-10 JK

DUDEK

6483-01

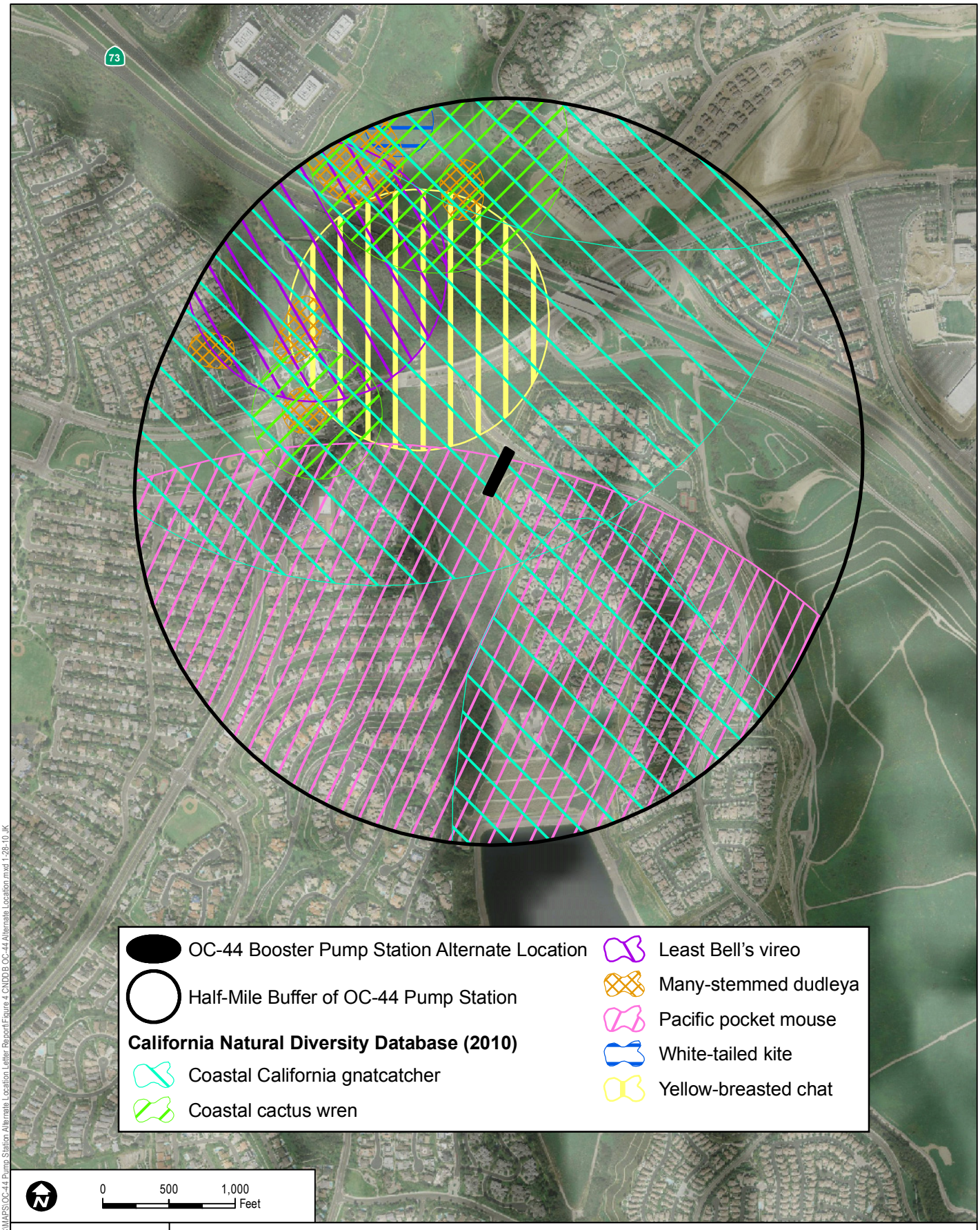
FEBRUARY 2010

SOURCE: DIGITALGLOBE 2008.

FIGURE 3

OC-44 Booster Pump Station Alternate Location Vegetation Map

Poseidon Huntington Beach Seawater Desalination Plant
Underground Booster Pump Station Project Site Option 3



Z:\Projects\6483001\MAPD\OC\MAPS\OC-44 Pump Station Alternate Location Letter Report\Figure 4 CNDDB OC-44 Alternate Location.mxd 1-28-10 JK

DUDEK

6483-01

FEBRUARY 2010

SOURCE: CDFG 2010; DIGITALGLOBE 2008.

FIGURE 4

California Natural Diversity Database Special-Status Species Map

Poseidon Huntington Beach Seawater Desalination Plant
Underground Booster Pump Station Project Site Option 3